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ABSTRACT

This publication contains findings of several studies that evaluated South Korean education and activities for 1992. The Korean Educational Development Institute, which conducted the studies, focuses on educational research and development. Following the prologue, part 1 first presents findings from 19 studies conducted by the Institute's Curriculum Research and Development Center. Topics include democratic citizenship education in primary schools, innovative teaching methods, new evaluation systems for various curricula, textbook analyses, and the role of the school in moral education. The second subsection of part 1 presents findings of eight studies conducted by the Educational Foundations Research Center, which examine educational trends, adult and continuing education, an enrichment program for gifted children, and the development of teaching/learning materials. The third subsection highlights the results of seven studies conducted by the Education Policy Research Center, which assess college entrance examinations, college-level vocational education, primary rural schools, local finance systems, and teacher recruitment. The findings of five studies conducted by the Computer Education Research Center are summarized next, and the final subsection highlights one study of a vocational training course for air and correspondence high schools. Part 2 describes the activities and organization of the Educational Broadcasting System. Cooperative international activities are described in part 3, and part 4 lists commissioned research projects. (LMI)

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1992 ANNUAL REPORT

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KEDI

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1992
ANNUAL REPORT

KEDI

Prologue

As has been for the past 20 years, KEDI has continued to address diverse educational concerns through short- and long-term research projects, which is a part of an effort to meet social anticipation from education in Korean society. In the course of such endeavors, KEDI staff have devoted themselves to devising and undertaking appropriate research to cope with current educational issues and problems.

In 1992, KEDI has completed four major long-term projects which to find solutions for major current educational problems and issues. Specifically those are: "Development of Democratic Citizenship Education System" which aimed at bringing up democratic citizens for contemporary society; "School Education Dominated by College Entrance Examination--Reality and Counteractions," resolving chronicle problems in the college entrance examination system; "Improvement of Evaluation System for Quality School Education," devising new testing and measurement tools for quality teaching-learning practices in schools; and "Comprehensive Understanding and Future Prospect of Education," contemplating primary and secondary education in Korea from comprehensive and long-range perspectives and eventually designing its future.

In addition, KEDI carried out researches in the areas of educational foundation focusing on developing curriculum and educational materials including textbooks, educational policies to aid policy-making, computer education to develop educational software, and high school level distance education to provide programmes.

KEDI research outcomes of the above projects have been utilized for enhancing the quality of primary and secondary education. The materials derived from the project outcomes and in high demands from individual schools are "Thinking Ability Development Programs," "Democratic Citizenship Education Materials," "A New Evaluation System," "KEDI Group Intelligence Test," and "Cognitive Teaching-Learning-Materials for Kindergartners."

The 1992 KEDI Annual Report is enlisted with research outcomes in a condensed form; various programmes of Educational Broadcasting System; a number of overseas activities of KEDI staff, training programmes for overseas educatonalists, and overseas visitors to KEDI; and commissioned research projects.

I sincerely hope that the 1992 KEDI Annual Report would provide the international community with an opportunity to appreciate Korean education and KEDI activities in educational research and development. I would like to acknowledge the special efforts of the KEDI research staff, particularly those in the International Cooperation Division in compiling this volume.

October 1993

Jong-ha Han, Ph.D.
President

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I. CURRICULUM RESEARCH & DEVELOPMENT CENTER

1. A SURVEY OF DEMOCRATIC CITIZENSHIP EDUCATION IN PRIMARY SCHOOLS

Shin, Se-ho
Kwak, Bynug-sun
and 13 others

1. Outline of Survey

Major concerns of this survey were the three parties involved in primary education; namely, teachers, parents and students. The purpose of this study was to examine their demands concerning democratic citizenship education, and to locate suggestive issues for the development of teaching/learning materials for democratic citizenship education at primary level. Six major areas of survey were an evaluation on the scale of democratic maturity of Korean school and society; an evaluation of current democratic citizenship education in primary schools; measures to improve current democratic citizenship education; a desirable quality of democratic citizenship; content of democratic citizenship education; and utilization of teaching/learning materials.

Surveys and interviews were used for this study. Three different types of questionnaire were developed according to test subjects--teachers, parents and students. Only the questionnaire was used for the first two groups, while the researchers interviewed the student group individually due to their diversity regarding developmental stages. The teachers and parents were selected out of 40 schools nationwide on the basis of the number of schools in a region and the number of students in each school. The student subjects to be interviewed were selected

out of 15 schools nationwide. The responses from 291 teachers, 1,530 parents and 211 students were analyzed eventually.

2. Results of Analysis

1) Democratic Maturity of Korean School and Society

Both the teacher and parent groups responded with hesitancy to various questions, evaluating the prevailing class of society negatively. On the other hand, they were positive about themselves. Teachers evaluated their colleagues and themselves generally democratic, and parents shared the same belief about their families and themselves. However, an interview of their students/children revealed that physical and verbal violence were often exercised, which casts doubts on democratic maturity of the first two groups.

2) Evaluation of Current Democratic Citizenship Education

The subjects generally responded the existence and degree of current democratic citizenship education were insufficient. Students perceived that the frequency of 'discussion activities on individual and social issues' were particularly lacking. On the other hand, teachers identified 'acquisition and internalization of essential manners for a citizen, and obedience to regulations and laws' as well as 'development of a capability to actively participate in a group discussion and to logically express own opinions' as particular areas which should be more emphasized in democratic citizenship education. They also pointed out 'competition-oriented atmosphere' and 'lack of

democracy in administrative structure and school system as causes of deficiency.

3) Measures to Improve Current Democratic Citizenship Education

As for measures to improve current democratic citizenship education in primary schools, the majority of teachers (42.3%) suggested 'improvement of the school administration structure to allow students direct experiences in democratic procedure.' Other alternatives were 'improvement of the current evaluation system to allow teachers to assess knowledge, attitude and capacity as required of a democratic citizen (24.3%)' and 'revision of curricular and textbooks, and enhancement of related teaching/ learning materials (23.2%).'

4) Desirable Quality of Democratic Citizenship

As for characteristics of a desirable democratic citizen to be given a priority in primary education, teachers highly recommended 'a person of proper behavior, observing essential manners, public order, and law (37.1%),' and 'a person seeking impartiality and suppressing selfishness for public good (31.4%).'

5) Content of Democratic Citizenship Education

When asked to choose a theme to be covered in democratic citizenship education out of 13 prevailing problems of Korean society, teachers and parents picked mostly 'absence of orderliness in using public transportation and facilities,' 'avoidance of difficult, dirty

works,' 'superfluous extravagance and wastefulness,' and 'environmental pollution.'

6) Utilization of Teaching/Learning Materials

As for the utilization of teaching/learning materials to be developed, teachers expressed the strongest support for 'utilization as supplements to related disciplines.' Some supported 'assimilation into the regular curriculum as an independent discipline,' while few did 'utilization as a teaching/learning material on an individual basis' and 'utilization as a reading material.'

2. A STUDY ON INNOVATIVE TEACHING METHODS

Huh, Kyung-chul
Kim, Hong-won
Im, Seon-ha
Yang, Mi-kyung
Kim, Sung-hoon

In an attempt to find a remedy for problems in school education, this study is to collect, analyze and systematize innovative teaching methods engaged at individual schools. It aims to identify those methods applicable to school education effectively, and to explore means to spread, disseminate and generalize them.

Principal tasks of this study can be summarized as follows.

1. Clarification of the Characteristics of & Approaches to Educational Reform

Upon an analysis of the conditions and characteristics of educational reform, the researchers specified traits of two groups--those who support or oppose reform--as well as psychological factors and detailed categories of resistance. They suggested three conceptualization patterns of the reform procedure: research-development, social interaction, and problem-solving models.

2. Categorical Analyses of Innovative Teaching Methods

The researchers distributed a survey questionnaire to the boards of education and educational research centers nationwide to collect instances of innovative teaching methodology practiced in school education. Approximately 1,000 cases collected were classified into 5 major categories of educational objectives, content, methodology, evaluation, and management, and subsequently 32 sub-categories; then, their content, means, frequency, and tendency were analyzed and described.

3. In-Depth Analysis and Evaluation of Representative Cases

Among the collected innovative methods, the researchers selected 8 cases of importance, visited the concerned schools for in-depth observation, and analyzed/evaluated their content, methodology, and educational significance. Those instances subject to extensive analyses are as follows:

a. applying teaching-learning methods that intensify a continuity

between kindergarten and primary education;

b. practicing subjective evaluation;

c. practicing "exploration of one theme for one student" activity;

d. practicing open education;

e. practicing education of "so-dang" style, Korean traditional teaching method;

f. practicing learner-oriented educational methods based on small groups;

g. improving teaching methods by using computers; and

h. dividing a class into a few groups by students' levels;

4. Innovative Teaching Methods Practiced at Individual Classrooms

Upon an extensive examination and analysis of the above 8 cases, the researchers presented 4 selected cases--subjective evaluation, "exploration of one theme for one student" activity, small group learning, and open education--in a seminar held at KEDI on August 21, 1992. This seminar aimed at encouraging those who were concerned about an understanding of the overall improvement of educational methods as well as particular innovative teaching methods practiced in school education, and promoting/disseminating the methods. Approximately 300 educators from boards of education, schools and colleges attended the seminar. The content and results of the research were summarized in the final session of comprehensive discussions and further suggestions. The panelists concluded the seminar with suggesting prerequisites of

further innovation, namely more inventive and effective educational methods.

3. A STUDY ON NEW EVALUATION SYSTEM FOR A QUALITY SCHOOL EDUCATION (III)

-- Evaluation Model for Educating Affective Behaviors --

Kim, Sung-hoon
Kim, Yang-boon

This study was carried out as the final part of 'Development of New Evaluation System for a Quality School Education,' following the second-year research of the project entitled 'Development of an Evaluation Model for Educating Affective Behaviors' in 1991. It aimed to develop reliable, valid evaluation tools to assess affective behaviors of students in primary and secondary schools.

To achieve the above goal, the following tasks were conducted: reviewing the previous evaluation tools for affective behaviors; compiling information about evaluation practices in other countries as well as opinions of teachers and specialists; establishing evaluation categories for affective behaviors; and developing teacher's guideline and student's self-test gauge on the basis of an evaluation model developed in 'A Study on Development of an Evaluation Model for Educating Affective Behaviors' (Shin, Se-ho, et al., 1991).

This study defined ten evaluation categories: observance of the law, diligence, sense of responsibility, cooperation, independence, honesty, leadership, manners, emotional stability, and creativity. For

each category, evaluation items were outlined to assess student's standings in learning, daily performances, and extracurricular activities. Final items were determined through consultations and tool reviews among educational evaluation specialists and teachers of primary/secondary schools. These evaluation tools for affective behaviors were of three-step scale, consisting of 79 items for primary school teachers and students and 80 for secondary school teachers and students.

To examine how to revise and verify the validity of the above evaluation tools, they were administered at schools between late May and early June of 1992. Two schools were selected from each of primary, junior high, and high school (general and vocational) levels. A total of 290 subjects were fifth- and sixth-graders as well as junior high and high school students--10 students and their teachers from each school. To verify the validity of the developed instruments, the researchers requested in the early July, 1992, the teachers and students self-diagnose on the basis of an affective behavior tool by Kim, Hyung-rip (1981). As for subjects at junior high and high schools, the results of overall affective behavior were collected in a form of school report cards in the previous term (second semester of 1991).

To determine how to revise the affective behavior evaluation tools, the researchers analyzed the evaluation results. The targets of investigation were those items for teachers/students that were found difficult to assess and an increase in reliability once certain items were removed. Also the number of characteristics covered by the tools were examined through a factor analysis. In short, the affective

behavior evaluation tools developed in this study turned out relatively good, which deals mainly with one trait, affective behavior condition, and needs no revision or supplement.

Basic statistics and the reliability and validity of coefficients of evaluation tools were used in an analysis of the data. As for basic statistics, there were the mean, standard deviation, curtosis, skewness, range and maximum for each evaluation category as well as the total score of teachers' and students' assessment at each school level. Reliability and validity tests in both aspects of norm-referenced and criterion-referenced assessments were also conducted. The results indicated that the affective behavior evaluation tools developed in this study were relatively reliable and valid in both terms of norm- and criterion-referenced assessments in assessing student's progress level and to record evaluation results.

To utilize the evaluation tools, two methods were recommended: to use the concept and evaluation items of each category as criteria for descriptive evaluation of student's affective behaviors and to make a comprehensive assessment based on the results of teacher's evaluation. As for the results of student's evaluation, the researchers suggested to use them as an aid to improve reliability of teacher's evaluation results, and as an aid to understand and guide students, and defined necessary principles.

As for recording the standing of affective behaviors, it was recommended to mark "zero" for satisfactory conduct in the affective behavior category column and to describe the merit-oriented report in a sentence form that explains student's affective characteristics

(checking whatever category the teacher and the student find satisfactory). Also in case of secondary schools, it was recommended to mark "A" for satisfactory conduct, "B" for unsatisfactory discipline to replace the current practice of marking A, B and C.

4. A STUDY ON NEW EVALUATION SYSTEM FOR A QUALITY SCHOOL EDUCATION (III)

-- Improvement of Evaluation in Primary and Secondary Schools --

Shin, Se-ho
Kim, Sung-hoon
Kim, Yang-boon

This study aimed at comprehending the reality and problems in school education as revealed in the three-year project entitled 'A Study on Evaluation of School Education in Pursuit of Quality Education,' and exploring policy guidelines to improve the evaluation system. To achieve the above goals, this study clarified the meaning of educational evaluation mainly through reviewing previous literature; analyzed the educational conditions closely related to evaluation; sorted the reality, problems and improvement directions of evaluation for each academic discipline; and recommended possible measures to reform evaluation of school education. The measures were again referred to the groups of primary/secondary school teachers, administrators, and specialists for commentaries to indicate their support or opposition.

The meaning of educational evaluation can be defined in two categories: student and program evaluations. Conditions related to evaluation of school education were analyzed from participants'

viewpoints about education and evaluation, school education dominated with preparations for college entrance examination, teacher's working conditions, opportunities for in-service training in evaluation, and social trends.

Consequently, this study analyzed previous studies on the reality, problems and improvement of evaluation for each academic discipline; recommended policy guidelines for a new evaluation system; and examined opinions on suggested improvement measures. The priority order among the resulting policy recommendations is as follows.

1) To develop in-service and pre-assignment training programs with an emphasis on their practice that can bring about effective changes,

2) To abolish recording score-based evaluation results in primary schools to avoid unnecessary competitions among students,

3) To employ various evaluation methods,

4) To devise a new merit system based on the actual content and level of learning in addition to grade ranks,

5) To extend and exercise criterion-referenced evaluation,

6) To reform the method of profiling student's performance and to increase its share in admission screening process,

7) To institutionalize a continuous item development system for the scholastic aptitude test for college,

8) To abolish or diminish the significance of an admission test required by an individual college,

9) To support endeavors to improve evaluation at schools and research activities,

10) To encourage evaluation to analyze or correct learning errors,

11) To train evaluation specialists and to reinforce evaluation studies, and

12) To collect and disseminate regional/nationwide information about evaluation.

This priority list in overall indicates that improving teacher training and applying possible measures are significant to amend improper evaluation practices at primary and secondary schools. The above policy measures could be applied to both primary and secondary schools, but revealed slight differences as well: to abolish recording results of competitive tests and to establish a new merit system, such as progress or effort awards, are for primary schools; on the other hand, to develop teacher training programs is for secondary schools, and measures related to college admission test are for high schools only.

5. A STUDY ON NEW EVALUATION SYSTEM FOR A QUALITY MORAL(ETHICS) EDUCATION (II)

Yoo, Kyoon-sang
Cho, Nan-sim
Yoon, Hun-jin
Yang, Hee-in
Chung, Min-ja

This report was the second part of the 1991-92 project, which aimed at an expansion and advancement of the results of the previous year study (1991). Specific objectives were as follows.

1) To examine at a theoretical level the validity of a tentative evaluation model of moral/ethics education as suggested in the 1991

study, and to come up with a final version;

2) Based on this model, to clarify conceptual distinctions among intellectual, emotional and behavioral aspects of morality in relation to the level and curriculum of moral/ethics education; accordingly, to clarify conceptual distinctions among intellectual, emotional and behavioral aspects of morality in relation to the academic achievement of moral/ethics education; and to specify evaluation standards to reflect each of these aspects;

3) Based on these specified evaluation standards, to define an evaluation situation where they can be tested; in other words, to develop evaluation tools and items that can detect where and how students learned a particular idea;

4) To administer the developed evaluation tools and items to experimental groups of fifth-graders, eighth-graders, and high school juniors, and to revise them; and

5) To suggest diverse feasible evaluation items .

6. A STUDY ON NEW EVALUATION SYSTEM FOR A QUALITY KOREAN LANGUAGE EDUCATION (III)

Shon, Young-ai
Lee, In-je
Park, Young-mok

A study on the improvement of school evaluation system was carried out for three years. Based on the theoretical research of the previous two years, this final-year study focused on developing tentative evaluation implements and exemplifying sample evaluation tools (paper

and pencil test items, questionnaire, etc.).

The first-year study had established a desirable image of human being to be sought in Korean school education, and suggested possible roles Korean language education can play to realize such a goal. The second-year study analyzed actual evaluation practices in Korean language education, developed new evaluation models (conceptual and procedural ones), specified evaluation objectives for an academic achievement assessment among related variables, and exemplified an evaluation. Based on the research outcomes of two previous years, the final-year study focused on the development and application of the most valid assessment tools for Korean language education.

To achieve the above goals, this study specified evaluation objectives on the basis of content structure and curriculum objectives of Korean language education as well as unit objectives of textbooks, developed sample evaluation tools for each objective, and applied them to the class works to verify credibility and usefulness of each tool. Due to the current environment of school education, however, direct evaluation items to evaluate student's speaking ability could not be applied even though a specialist group verified their validity. Consequently, only those tools to assess student's achievement in the fields of listening, reading, writing, usage and literature were applied to the class works.

The number of the items actually tested was 37 at primary school level and 41 at junior high school level. To analyze the validity of individual items and the overall credibility of the evaluation questionnaire, this study considered subjective and expository items as

independent ones with different supply types and essay tests. The analysis results on the credibility of sample items were affirmative both for the level of primary school (r=.773) and junior high school (r=.836).

Teachers agreed that the largest obstacle to evaluation practices based on essential qualities of Korean language education lay outside the domain of Korean language education, such as school education dominated by college entrance examination or an excessive number of students per class. On the other hand, many teachers also pointed out as serious problems the lack of teacher's professionalism, diverse information about evaluation, research on how to establish minimum standards for direct evaluation.

Throughout primary, junior high and high schools, students were found to heavily rely upon commercial reference books or tests as learning aids for the Korean language lesson. They replied, however, that they would be more interested in reading other books during extracurricular activities if a Korean language test similar to one in this study had been conducted in school. This response indicates that a direction of evaluation is quite significant in Korean language education as it affects student's learning attitude.

Systematic in-service training and diverse materials regarding evaluation in Korean language education should be developed and distributed in order to provide basic data for a reliable judgement on the improvement of student's linguistic capability and to assist the improvement of teaching and learning materials and classroom instruction. In addition, teachers should be guaranteed a set number

of hours for evaluation, which will allow them sufficient time for genuine educational activities. Consequently, government support is necessary for conducting evaluation that can realize quality education.

7. A STUDY ON NEW EVALUATION SYSTEM FOR A QUALITY SOCIAL STUDIES EDUCATION (III)

Choi, Suk-jin
Yoo, Jae-taek
Kim, Chung-ho
Suh, Jae-cheon

A study on the improvement of school evaluation systems had been carried out for the past three years. Based on theoretical research of the past two years, the study of the final year focused on developing tentative evaluation instruments and suggesting evaluation methods.

The goal of social studies education is to bring up not a person of sheer knowledge but a desirable democratic citizen, namely an independent individual who could behave upon critical thinking, cope with social problems by oneself, adjust oneself effectively to a changing society, and explore one's own future independently. To achieve the goal, the emphasis of social studies education evaluation was given not on sheer knowledge but on an internalization of desirable attitudes and social values. As for the instrument, the evaluation of the affective domain and thinking/functional skills of students were stressed.

To assist the evaluation in social studies education at primary and secondary schools, 20 tentative evaluation items on each of four subjects were developed according to evaluation theories, and experimented to appropriate graders. The four subjects were: Social Studies for 5th grade, Social Studies I for junior high school, and Korean Geography and Politics/Economics for high school. Experimented students and schools were selected evenly to represent large, medium and small cities, and rural villages.

The results of experiments were collected and analyzed. Upon a close review, bad items were replaced with new ones. In addition, the researchers' opinions about each item were presented.

It was recommended to follow the above procedure before implementing the instruments at each school. During a review process in particular, such issues as which evaluation item concerns what content or represents what behavioral field should be determined in advance, and the format of each item need to be reassessed.

Here the public should be warned against a tendency to comply with a limited behavioral pattern and a failure to overcome this kind of behavioral inertia that would inhibit attempts for reform. The tentative instruments shown in this study may not be perfect and sometimes hard to be implemented by individual schools; however, more resolute endeavors for reform should be initiated on the basis of these items. Evaluation instruments of foreign countries were presented as references for the reform of Korean evaluation systems.

8. A STUDY ON NEW EVALUATION SYSTEM FOR A QUALITY MATHEMATICS EDUCATION (III)

Shin, Sung-kyun
Hwang, Hye-chung
Kim, Soo-jin
Sung, Kum-soon

This is the findings of the final-year research out of the three-year project on the overall improvement of the evaluation quality and practices in mathematics education.

The study of the first year (1990) was to explore roles of and recommendations for evaluation in mathematics education to seek for quality education. Accordingly, problems in current evaluation practices in mathematics education were identified, and possible measures to improve the problems were suggested in the following aspects: evaluation of problem-solving ability, evaluation of mathematical aptitude, specification of education objectives, composition and administration of scientific evaluation items, and utilization of evaluation results.

The study of the second year (1991) analyzed evaluation practices in mathematics education at elementary, junior high and high schools, and developed evaluation system and tools tentatively. Theoretical explorations on evaluation models in mathematics education were analyzed. A new evaluation system was developed on the basis of the overall evaluation system for quality education which had been developed in the previous year. A tentative evaluation tool for one unit of each of 5th , 8th, and 11th grades was developed on grounds of

this system.

This study of the concluding year (1992) aimed at improving evaluation problems on the basis of research results of the first two years. As for cognitive evaluation tools, software for diagnostic and formative evaluations, and a pencil-and-paper test for overall assessment were developed. As for emotional evaluation tools, tests to analyze/observe mathematical aptitude and learning attitude as well as a checklist for such aptitude were developed.

To explore a possible utilization of the tools in emotional, cognitive domains, they were developed and applied to individual schools. The results were briefly summarized as follows.

1) Diagnostic evaluation software: 'surface area and volume of a cylinder' for the 6th grade and 'solution of simultaneous equation' for the 8th grade. The software was to analyze learning prerequisites and, on the basis of the analysis, to assist correction/preparation activities wherever needed. In other words, students were to remedy only those prerequisites they lack on the basis of analysis results. They were also to prepare for the lesson when they were found having no missing sequence in learning process, or after they completed correction works as required.

2) Formative evaluation software: 'surface area and volume of a right hexahedra' for the 5th grade and 'factorization' for the 9th grade. The software was to assess student's achievement of a given task, and to assist supplementary and advancement lessons on the basis of the assessment. In other words, supplementary lessons were to teach the elements that students failed to accomplish according to the

results of formative evaluation. Advancement lessons consist of highly difficult questions related to the main text. Students could move on to this level when they had been found to have no element to accomplish in formative evaluation, or had completed supplementary lessons.

3) A paper-and-pencil test: for summative evaluation that includes various test items with an emphasis on a descriptive type. The software was to improve student's problem-solving ability. Currently an evaluation method predominantly used by schools is a paper-and-pencil test with multiple-choice questions. This test emphasizes students' fragmentary knowledge, and therefore, fails to assess adequately high-level thinking skills. In addition, an inclusive evaluation model was developed on the basis of description-type questions for a summative evaluation of problem-solving skill, not only the results but the process as well.

Consequently, evaluation programs were developed for students in elementary, junior high, and high schools. The related units were 'area of a triangle,' 'a triangle and a quadrangle,' 'addition of decimals,' and 'subtraction of decimals' for the 4th grade; 'simultaneous equation,' 'linear function and its graph,' 'solution of linear inequality,' and 'calculation of expression' for the 8th grade; and math principles of the courses of General Math and Math I for the 10th grade.

In regard to the educational significance of a subjective test, an analysis was made on the points of consideration in utilizing a subjective test--how to realize its merit and complement its deficiencies. Mathematics indicates a direction of problem-solving

relatively clearly, compared to other academic disciplines, and scoring elements and standards for subjective question items were clarified accordingly.

4) To evaluate an emotional element, tools to test student's mathematical aptitude and attitude were developed. In order to assess student's mathematical aptitude, a questionnaire, observation report form and observation checklist were developed . Completion of unfinished sentences and interview method were developed tentatively as well. An attitude test was developed to assess student's learning attitude.

5) An implementation of educational software in classroom showed that the software could lighten teacher's burden and draw positive responses from students, and therefore their utilization was highly recommendable.

As for the paper-and-pencil test for summative evaluation with an emphasis on description-type items, an analysis of the test results indicated that students were accustomed to multiple-choice, objective questions, and therefore, could not describe the problem-solving process accurately in writing/formula. On the other hand, the description of problem-solving process in this test identified student's ability to organize and express thinking process as well as to use mathematical signs correctly. Hence, the application of this test to schools was highly recommended, and teachers responded positively.

9. A STUDY ON NEW EVALUATION SYSTEM FOR A QUALITY SCIENCE EDUCATION (III)

Kim, Joo-hoon
Kim, Young-min
Lee, Yang-rak
Noh, Suk-goo

This study was a part of the three-year (1990-92) project, which has been carried out on a belief that science education can contribute to the restoration of a quality education by renovating the methods and substance of evaluation. This report was to conclude the whole project. The objectives of the three-year project were to incorporate in evaluation not only student's knowledge but overall capacities, including exploring capability and attitude; to assess overall teaching/learning procedure for the teacher; and finally to develop a new evaluation system in science education.

In the first year of 1990, quality education was defined as one that strives for 'development of a whole person' and established its model. Then, they delineated the role of science education in the attainment of sound character, systemized the objectives of school science education, and explored the evaluation guidelines in science education.

In the second year of 1991, a survey was carried out on science education evaluation practices at schools. Based on the findings, a conceptual model in science education evaluation were developed to clarify evaluation categories, interrelations among them, and sub-categories constituting each category; a procedure model to evaluate

the teaching/learning procedure were established; evaluation categories and methods were recommended to assess academic achievements; and explicit tools to evaluate teaching/ learning procedure and academic achievements were illustrated.

Based on the findings of the two previous years, evaluation tools were developed for selected units of four courses -- 5th-grade "Nature", 8th-grade "Science", and high school "Science I & II." They also applied these tools to school education to examine the validity and applicability of the guidelines, methods, and tools.

As for evaluation tools, paper-and-pencil, practice, observation (students' behavior and conversations) types were developed for primary schools, and paper-and-pencil and practice types for secondary schools. Appropriate items were selected among these for the development of particular evaluation tools to be applied to school education. A questionnaire was also developed to survey the opinions of teachers and students on selected tools.

One city school and one county school of every level--primary, junior high, and high schools--were selected for an application of the tools. Students of one class from each school were requested to respond a student's questionnaire, following the application of evaluation tools. A teacher's questionnaire was distributed among 5th grade teachers and science teachers (secondary level) of these schools. As for the results of applying these tools, correlation coefficient of total scores and science grade points, behavioral factor analysis, and item analysis were conducted.

An overall response of students was that tests used in this

research were difficult and current science education might help students solve them to a limited degree. Compared to existing tests, the new ones had a different format and required more time for problem-solving; therefore, students responded they would need a new teaching/learning methodology to prepare for this new type of tests.

Teachers showed similar responses to the issues of item difficulty and format, critical thinking required, necessity of a different teaching style. They regarded the evaluation tools were positive in overall in that they could meet the goals of science education and encourage quality improvement. Due to school conditions, the teachers pointed out that it might be difficult to execute satisfactorily the new evaluation and teaching methodology suggested by this research; however, they believed it was worthy of pursuit simultaneously with an improvement of educational conditions.

10. A STUDY ON NEW EVALUATION SYSTEM FOR A QUALITY MUSIC EDUCATION (III)

Sung, Kynug-he
Kwon, Duk-won

This study was to develop a new evaluation system in music education as a part of the three-year (1990-92) project of developing evaluation models for school education in general and evaluation tools and models to be specific. In the first year (1990) the roles and purposes of music education were defined and desirable music evaluation

practices were examined. New directions of music education were also suggested. In the second year (1991) the following tasks were carried out: diagnosis of the current music evaluation practices in primary and secondary schools, development of an evaluation system for school music education, and development of sample evaluation tools items in music education.

In the final year (1992) a validation process of the sample assessment tools and items was undertaken.

Some of the sample evaluation tools are as follows.

1. Cognitive Domain

1) This item is to identify 'syncopated rhythm' in the melody. Please listen carefully the following 4 melodies and check the one that a 'syncopated rhythm' does not occur.

* Music to be played (each item for about 1 minute)

a. Mozart, W. A. "2nd Movement" from "Eine Kleine Nachtmusik," K. 525 (syncopated)

b. Brahms, J. "Hungarian Dance", No. 5 (syncopated)

c. Haydn, J. "2nd Movement" from *Symphony* No. 101, D major (not syncopated)

d. Kreisler, F. "Liebeslied" (syncopated)

2) You will hear examples of music for work. The first one is a piece of work music from Korea and the second one from Africa. Listen carefully and discuss the roles of this music at work place and/or in the lives of the people.

* Music to be played

a. Korean music for work in the rice field

b. African music for work

2. Psychomotor Domain

(Singing Evaluation Tool)

Criteria

	GOOD	AVERAGE	BELOW AVERAGE	REFERENCE
Rhythm	correct above 90%	correct above 70%	correct below 70%	count by measure
Pitch	correct above 90%	correct above 70%	correct below 70%	count by measure
Musicality & Creativity	good	average	below average	musicality & creativity: vocal production, enunciation, phrasing expression, tone-quality, etc.

3. Affective Domain

(Student Self-Checklist)

* For each item, please check an appropriate column.

Name	positively yes	yes	positively no
a. I think music enriches my life.	3		1
b. I listen to music whenever I have a chance.	3	2	1
c. I want to listen to music as much as I want.	3	2	1
d. I hope everybody enjoys music.	3	2	1
e. I am going to learn more about music to enjoy it better.	3	2	1
f. I think everybody should make music a part of his/her life.	3	2	1
g. Playing a musical instrument is fun.	3	2	1
h. Making new music is fun.	3	2	1
i. Singing is fun.	3	2	1
j. I very much enjoy making music with my friends.	3	2	1
k. Listening to good music makes me happy.	3	2	1

11. A STUDY ON NEW EVALUATION SYSTEM FOR A QUALITY FINE ARTS EDUCATION (III)

Yoon, Yang-hee
Park, So-young

To improve the evaluation system in art education, the project of the third year was to develop evaluation tools on the basis of the tentative model that had been suggested in the previous year (1991); and to present actual cases of utilizing those tools as examples.

This third-year study began with confirming the previously established evaluation objectives and concluded with the use of the evaluation system on measuring student's achievement level. The categories of evaluation were cognitive, affective and psychomotor domains. At the stage of specifying evaluation objectives, the study delineated evaluation goals for each discipline, evaluation objectives for each grade year, curriculum content, and the content of textbooks. Subsequently, a classification table for dual objectives was formulated. At the stage of planning for actual evaluation practices, the time, frequency and methods of evaluation in each of cognitive, affective and psychomotor domains were determined; and how to assess and utilize evaluation results was planned.

At the stage of developing tools to be used in actual evaluation activities, evaluation standards were established on the basis of evaluation objectives. Selected evaluation standards for expression activities were knowledge, understanding and application in the cognitive domain; creativity, expressiveness, practicality and artistic

quality in the psychomotor domain; and attitude in the affective domain. Those for appreciation activities were knowledge, understanding and application in the cognitive domain; and attitude in the affective domain.

Detailed evaluation points for expression activities were, in the cognitive domain, characteristics of expressed content; characteristics/utilization of construction and of materials/tools; expression technique; and knowledge, understanding and application of configuration process. Points in the affective domain were preparation, sincerity, confidence and attitude about completing an art work. Points in the psychomotor domain were originality and flexibility of theme, content and expression method within a creativity category; selection/utilization of materials/tools, observation and formation capability, sketch, expression method (how to depict movement/rhythm, traits of objects/texture, shade/substance/ solidity, distance/space, contrast/mixture/shade of colors, individuality of posture/holding of brushes and pattern/ arrangement/calligraphic style of characters, traits of ornamental engraving, and seal), and course of production within an expressiveness category; suitability of a goal in a practicality category; and overall expression, coordination of shape and color, and effect in an aesthetic category.

Specific evaluation points for appreciation activities were, in the cognitive domain, characteristics of art culture for different times/genres, aesthetics, elements/principles of art, knowledge/understanding/application of capacities to analyze/assimilate/evaluate. Points in the affective domain were

preparation, sincerity, confidence, and attitude to respect an art work. Here how to allocate total score between different domains and points was to be determined according to teaching/learning objectives and content.

An evaluation tool for the cognitive domain was a paper-and-pencil test with items of diverse types. Evaluation tools for the psychomotor and affective domains were based on methods of aligned assessment and observation account. Evaluation tools were to examine, observe and record student's achievement level on an excellent-average-low scale in terms of evaluation standards. Detailed points of each standard, which were to examine and score items related to evaluation objectives, were indicated in a remarks column. They would allow the teacher to contemplate and determine evaluation items and their priority prior to evaluation. In addition, self-test tools for expression and appreciation activities were proposed for students to write down candidly what they felt during learning activities. The evaluation tools were examined, revised and completed by teachers in the field and consultations with experts. At the evaluation execution stage, these tools were applied to an actual evaluation of several art works, and the results were shown in the appendix.

At the final stage of assessing and utilizing evaluation results, primary teachers were requested to write down evaluation results in brief sentences on observation sheets. Secondary teachers were asked to allot different score to each evaluation standard, to convert results on observation sheets into scores, and to write down simultaneously evaluation results in brief sentences on observation sheets. Teachers

were asked to use these results to examine the level of student's achievement of individual learning goals; to review, revise and supplement overall teaching activities; and to strengthen following teaching plans. In addition, the self-evaluation form offered students a chance to reflect upon their learning activities. They were asked to fill out and hand in the form with an art work or after an appreciation class so that the teacher could refer to an evaluation of student's achievement level.

12. A STUDY ON NEW EVALUATION SYSTEM FOR A QUALITY PHYSICAL EDUCATION (III)

Kim, Young-whan
Cho, Soon-moog

Among educational activities occurring at each school, every variable related to physical education can be considered subject to evaluation; therefore, an evaluation system that could be actually applied to physical education needs to be suggested.

This study aimed to improve the evaluation system in physical education. This three-year research (1990-92) was to develop an overall evaluation model for general school education; to devise an evaluation model in physical education on the basis of the general model for education; to specify goals of physical education; to develop evaluation methods, sample units, and new evaluation tools; and

eventually to contribute to improve the quality of evaluation and educational environment for physical education.

To achieve the goals, the following tasks were performed: (1) actual evaluation practices at individual schools were reviewed; (2) the recognition levels of teachers and students for physical education goals were surveyed and analyzed; and (3) an evaluation model, and subsequently, evaluation tools based on the model were developed.

Four standards for developing evaluation tools were to include psychomotor, cognitive and affective domains; to evaluate only core content selectively while including various divisions in the psychomotor domain; to evaluate various categories of the cognitive domain--terminology, history, rules, technique analysis, sociability and physiological effects; and to select and evaluate social skill elements for a given sport in the affective domain. Based on the findings of the study of the previous year, evaluation categories for each school level were determined as follows: basic movements, gymnastics, game, rhythm, and expressive exercises for primary school; field/track, gymnastics and ball games for junior high school; and field/track and ball games for high schools. An evaluation tool for each category were developed for the use of one school term. Prior to determining objectives for each category of content, a dual objective classification was made according to the selected content for each class.

The standards in skill evaluation were perception and drawing patterns for primary schools; adaptation and refinement for junior high schools; and modification and improvision for high schools. The

evaluation standard for primary school was how well the student satisfied an expected level of achievement in each area of basic locomotion, gymnastics (mat), game soccer, rhythm and expressive exercises. The evaluation standard for junior high school was how to correct these categorized movements to perform a given task as well as to utilize a particular movement to a different situation for performance. The evaluation standards for high school were how to devise/compose unique individual skills in sports performance and how to utilize these skills to confront different situations spontaneously. Here evaluation standards were described in behavioral terms for structured sports situations.

For knowledge evaluation, an analysis model of T. S. Sheehan (1972) was used. The content of knowledge included history, terminology, rules, technique analysis, social functions, physiological effects, and strategy. To verify validity of evaluation, especially to achieve even distribution of difficulty for each school level, evaluation items were composed as follows: knowledge, understanding and application for primary school; understanding, application and analysis for junior high school; and application, analysis and synthesis for high school.

For attitude evaluation, external behavioral objectives were established to avoid the ambiguity in behavioral characteristics. Checklists were composed for the levels of acceptance and response for primary school; response, value and organization for junior high school; and value, organization and internalization for high school.

The study concluded that the evaluation tools could become

significant means to reform physical education only when they were utilized on an individual basis. Consequently, an evaluation system to bring about quality education could be realized only when everyone involved in education strives to apply psychomotor, cognitive and affective evaluation items suggested in this study to the field of school education.

13. A STUDY ON NEW EVALUATION SYSTEM FOR A QUALITY FOREIGN LANGUAGE EDUCATION (III)

Choi Jin-hwang
Park, Ki-hwa
Kim, Young-june
Lee, Kun-nim

A. EVALUATION SYSTEM IN ENGLISH EDUCATION

1. Purpose of developing evaluation materials

1) To develop tools for accurate evaluation of communication skills
2) To develop tools for comprehensive evaluation
3) To develop tools for cultural evaluation

2. Composition of evaluation materials

1) Purpose of development
2) Directions of development
3) Analysis of preliminary execution in school education
4) Specification of objectives in each area
5) Establishment of evaluation standards for linguistic capability

6) Organization of evaluation items in each area

3. Directions of development

1) Listening -- abilities to differentiate sounds, to maintain aural impressions, and to listen and understand are emphasized.

2) Speaking -- oral communication skills are emphasized.

3) Reading -- the following points are emphasized in literal reading and comprehension:

a. an ability to understand facts,

b. an ability to understand chronology of events,

c. an ability to read and understand an indicative writing,

d. an ability to find a theme,

e. an ability to find a core concept,

f. an ability to summarize,

g. an ability to make out a conclusion,

h. an ability to relate an illustration to an idea,

i. an ability to find a word relevant to the context,

j. an ability to find cause and effect,

k. an ability to make a comparison,

l. an ability to grasp a character in literature,

m. an ability to perceive a table/figure,

n. an ability to make a prediction,

o. an ability to understand foreign culture, and

p. an ability to perform critical reading.

4) Writing -- an ability to write beyond a sentence and a paragraph is emphasized.

5) Comprehensive evaluation -- methods of cloze test and dictation

are suggested in detail.

4. Expected Effects

1) Through discerning these materials, teachers and students can understand the directions of evaluation at school, academic aptitude test, and admission test by individual colleges.

2) A complete understanding of these materials will enable teachers to compose evaluation items to accommodate quality English education.

3) To follow evaluation directions as suggested by these materials, the current direction and pattern of educational objectives should be changed, and therefore, an overall improvement in teaching can be anticipated.

B. EVALUATION SYSTEM IN GERMAN EDUCATION

The purpose of school education may be different for each era or country; however, its essence can be summarized as educating 'a decent human being.' The meaning of 'a decent human being' may be again dissimilar for each time and environment. In modern society, 'decent human being' can be defined as a sound individual with intelligence, sentiment and psychology in harmony, according to recent educational studies.

Unfortunately, however, the reality of Korean school education is deemed quite incompetent to rear such sound individuals. Several factors appear to be at work simultaneously to form this widespread negative conviction about school education; however, the most

influential elements are lack of compassion and planning in evaluation system and execution as well as appalling deficiency in educational environment. Consequently, an overall improvement of the evaluation system and execution is urgently needed to help school education perform its proper role of bringing up 'a decent human being.'

Based on the above objectives, this project entitled 'a study on evaluation system in foreign language education in pursuit of quality school education' was carried out for three years (1990-92) to reform the system and its execution in German education to meet the needs of educating 'a decent human being.' The tasks performed each year can be summarized as follows.

Major tasks of the first year (1990) were 'to define proper education and a desirable image of human being'; 'to delineate functions of German education in the realization of education of sound individuals'; and 'to establish evaluation guidelines in German education in the realization of education of sound individuals.' Those of the second year (1991) were 'to develop a tentative evaluation system in German education' and 'to develop tentative evaluation tools in German education.' Those of this concluding year (1992) were 'to specify evaluation objectives' and 'to develop evaluation tools.'

Since this was the final year of the three-year project, major tasks of the first and second years were briefly reviewed. Particularly, evaluation theories to activate reliable evaluation operation were reviewed in relation to major tasks of this year, 'development of evaluation tools with different objectives and functions.' Here central issues were 'particular evaluation

objectives,' 'dual objective classification table,' and 'provisional evaluation standards in German education.'

'Evaluation items for different functions and objectives' in part II of the data handbook explains characteristics of the research tasks for this year adequately. It suggests separate objectives for different levels of listening, speaking, reading and writing capabilities in cognitive and psychomotor domains; and individual evaluation items necessary to assess such functions. Since little information about evaluation in German education is available, this report is expected to assist evaluation practices at schools and quality education.

C. EVALUATION SYSTEM IN FRENCH EDUCATION

The purpose of school education may be different for each era or country; however, its essence can be summarized as educating 'a decent human being.' The meaning of 'a decent human being' may be again dissimilar for each time and environment. In modern society, 'a decent human being' can be defined as a sound individual with intelligence, sentiment and psychology in harmony, according to recent educational studies.

Unfortunately, however, the reality of Korean school education is deemed quite incompetent to rear such sound individuals. Several factors appear to be at work simultaneously to form this widespread negative conviction about school education; however, the most influential elements are lack of compassion and planning in evaluation system and execution as well as appalling deficiency in educational

environment. Consequently, an overall improvement of the evaluation system and execution is urgently needed to help school education perform its proper role of bringing up 'a decent human being.'

Based on the above objectives, this project entitled 'a study on evaluation system in French education in pursuit of quality school education' was carried out for three years (1990-92) to reform the system and its execution in French education to meet the needs of educating 'a decent human being.' The tasks performed each year can be summarized as follows.

Major tasks of the first year (1990) were 'to define proper education and a desirable image of human being'; 'to delineate functions of French education in the realization of education of sound individuals'; and 'to establish evaluation guidelines in French education in the realization of education of sound individuals.' Those of the second year (1991) were 'to develop a tentative evaluation system in French education' and 'to develop tentative evaluation tools in French education.' Those of this concluding year (1992) were 'to specify evaluation objectives' and 'to develop evaluation tools.'

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14. AN ANALYSIS OF KOREA-RELATED CONTENT IN FOREIGN SOCIAL STUDIES TEXTBOOKS

--Cases of Australia, New Zealand, Philippines, Thailand, Turkey, Mongolia and Brazil--

Lee, Chan-hee
Shon, Yong-taik
Kim, Bok-young
Park, Ki-hwa

As a part of the project to readdress inaccurate representations of Korea in foreign textbooks, this study analyzed Korea-related content in the social studies textbooks of Australia, New Zealand, Philippines, Thailand, Turkey, Mongolia and Brazil. Major findings of this study were as follows.

Textbooks of Australia focused upon the Korean Conflict, summarizing hastily the history prior to the Conflict. An overall image of Korea was described as "an underdeveloped country with a long history of subordination to big powers."

Textbooks of New Zealand, despite their relative objectivity in describing the Conflict, were confined to a perspective that was characteristic in "Cold War" mentality. With no further explanation of Korean history, Korea was portrayed as if it had emerged only after World War II.

Textbooks of the Philippines named Korea as the most typical among the Asian countries that had been occupied by surrounding big powers and colonized throughout history. Besides, they displayed markedly false conceptions about Korea, such as explaining the Korean race as Malayan and describing favorably the Japanese colonization of Korea.

Textbooks of Thailand focused upon modern history, emphasizing geopolitical factors and summarizing overall Korean history as "history of stubborn struggles against invasions of foreign powers (history of sufferings)." However, their illustrations about Korea-Japan relations showed even worse misconceptions; for instance, they attributed a cause of the independence movement to "Japanese negligence of Korean progress."

Textbooks of Turkey quoted basic geographical statistics, and therefore, showed no significant error or misrepresentation. Yet they employed extremely outdated photos and data in the fields of agriculture, fishery and industry.

Textbooks of Mongolia followed faithfully the viewpoints of North Korea. They described the government of South Korea as a puppet regime of the U.S. Imperialists, and the Korean Conflict as a "war to liberate the South" initiated by an "invasion of the North by the South."

Textbooks of Brazil described only the Korean Conflict, which

might lead to a lack of understanding and knowledge in culture or earlier history.

All in all, the social studies textbooks of these seven countries described Korea as a nation with history of subordination and sufferings from wars, and a rapid economic progress since the 1960s. A content analysis revealed that most of misconceptions about Korea were due to insufficient information and misleading references of Japanese origin they were quoting from.

15. AN ANALYSIS OF CHANGES IN KOREA-RELATED CONTENT IN JAPANESE SOCIAL STUDIES TEXTBOOKS

Lee, Chan-hee
Shon, Yong-taik
Kim, Bok-young

This study analyzed and examined the Korea-related content in Japanese social studies textbooks for primary schools which were first used in 1992, following the curriculum revision in 1989. The focus of this study was to investigate if they reflected what Koreans had demanded in regard to the correction of misrepresented images of Korea. Since this year marked the 10th anniversary of the 1982 incident over false presentations in history textbooks, this study aimed to investigate the differences in the Korea-related content between old and new editions of textbooks, to evaluate the on-going project aimed at redressing inaccurate representations of Korea in foreign textbooks, and to procure basic data for a similar project in near future for

secondary school textbooks.

In 1992 a total of 8 social studies textbooks for 6th grade were published. The titles and publishers (in parenthesis) of the eight textbooks are as follows: *New Social Studies* (Tokyo Books); *Our Social Studies for Primary School Students* (Japan Books); *Social Studies: New Edition* (Education Books); *Primary School Social Studies* (School Textbook Publishing Co.); *Inclinations of Japanese Society* (Jungkyo Publishing Co.); *Primary Social Studies* (Osaka Books); *Social Studies* (Gwangchon Publishing Co.); *Enjoyable Social Studies* (Imperial Books). Among these, *Social Studies* and *Enjoyable Social Studies* first appeared in 1992, and therefore, were omitted from analysis, for the purpose of this study was to compare differences between old and new editions. Hence, six textbooks were analyzed for differences in Korea-related content in several thematic areas.

First, the 1992 edition of *New Social Studies* by Tokyo Books showed little difference in its overall perspective despite a considerable increase in Korea-related content compared to the previous edition, and the contemporary history section showed even regression. In pre-history and ancient history divisions, it appeared to omit significant details intentionally. For it used a vague term of 'mainland,' which can be misleading as it tended to emphasize only Chinese influence, and continued to use a generic term of the 'Chosun Peninsula' (the Korean Peninsula) to designate successive Korean dynasties while differentiating Chinese dynasties by their authentic titles. In the medieval section the expression of 'invasion' was avoided in a description of the 1592 Japanese Aggression, and the

contemporary history section justified and defended the Sino-Japanese War and Russo-Japanese War from a Japanese viewpoint. Particularly, this textbook explained the Japanese victory over Russia as a 'triumph of Asians' and featured mainly war histories in describing Korea, failing to reflect Japanese repentance of the past wrongdoing (Greater East Asian Co-Prosperity Sphere) and Korean demands for a correction of misrepresented images.

Our Social Studies for Primary School Students by Japan Books showed an identical representation to that of Tokyo Books. Considerably expanded, the ancient history section belittled the influential roles of Korean 'immigrants' as mere transmitters of Chinese culture. Japanese invasion of Korea in modern history was claimed to be inevitable on the basis of 'international trends of the time.' All in all, the textbook provided an altogether gloomy picture of Korea by describing negative aspects of Korean history, including the Korean Conflict.

Social Studies: New Edition by Education Books again offered a similar perspective with those of the two previous textbooks. The textbook briefly described Korea of the ancient period as a mere transmitter of Chinese culture. In addition, the 1592 Japanese Invasion of Korea was explained as an inevitable sacrifice of Korea caught in Sino-Japanese conflicts, and used a term 'debouchment' in a brief summary of Japanese occupation in modern history, which indicated a more or less intentional distortion of truth. Yet the change of reflecting the cruelty of Japanese colonization policy to some extent was a hopeful sign.

Primary School Social Studies by School Textbook Publishing Co. had no remark on Korean pre-history, and thereby ignoring its influence on the formation of Yayoi Culture in Japan. In addition, the textbook did not comment on the damages of the 1592 Japanese Invasion on Korea, and its oversimplification of the Russo-Japanese War and the Sino-Japanese War could be misleading. The textbook also had no comment on positive aspects of Korean history, such as modern economic progress. All of the above representations were concluded as an intentional distortion through curtailing and omitting facts.

Inclinations of Japanese Society by Jungkyo Publishing Company uncritically followed so-called the theory of 'Japanese administration of southern regions of Korea' which had been claimed by Japanese scholars without any proper foundation, and refused to admit that the 1592 Japanese Invasion was a 'Japanese assault on Korea.' In addition, the Dong-Hak Farmers' Movement was described as the cause of the Sino-Japanese War and people like Komura and Toko, who were criticized as principal schemers of Japanese aggressions, were appraised as heroes or defenders of the country. This viewpoint was a serious distortion of history, almost defrauding the surrounding countries that had suffered.

The content of *Primary Social Studies* by Osaka Books showed similarities in dealing with pre-history and ancient history. Although the textbook contained a positive change by describing the 1592 Japanese Invasion as an assault on Korea, it repeated as a cause of the war a pretense of 'temporary access to Ming' claimed by Toyotomi Hideyosi at that time. In addition, the textbook maintained a viewpoint that justified the procedure of Japanese invasion of the mainland

through the Sino- and Russo-Japanese Wars on the basis of the social evolution theory. People like Komura and Toko were recognized as heroes. On the other hand, it should be noted that the textbook considerably expanded Korea-related content in modern and contemporary sections, and presented relatively affirmative and less distorted depictions about Korea.

As shown above, various Japanese textbooks showed a similar attitude in describing Korea-related core content, despite minor variations. As for different periods, the textbooks described in the ancient history section the role of Korea as a mere transmitter of Chinese culture, and thereby reducing the significance of Korean initiatives and the social, political and economic roles of the so-called 'immigrants.' In medieval history, they described the 1592 Japanese Invasion as an inevitable incident in the process of Japanese 'debouchment onto China' or an unhappy episode between Korea and Japan caused by Toyotomi Hideyoshi and his personal ambition.

Modern history, which is directly related to contemporary society, showed the falsest cases of misrepresentation. Particularly, in most of the textbooks the Japanese invasion of Korea was defended and justified as a part of the modernization procedure centered around superpowers. At the same time, the description of a broad range of oppression and exploitations Japan executed in Korea during the invasion and occupation process was either insufficient or completely omitted. The Korea-related content in the contemporary history section, including the Korean Conflict, presented a mainly dismal picture of Korea,

emphasizing her past history of being subject to aggressions, occupation and forced partition. This could mislead students to form a biased and inaccurate image of Korea.

All in all, this study concluded Japanese social studies textbooks failed to overcome the confines of a colonialist perspective that had been insisted by Japanese pro-government scholars. This study also came to a conclusion that serious distortions of historical facts in several textbooks were due to the textbook compilation guidelines set by the Ministry of Education rather than publishers' intentions. Here corrections and revisions of Japanese social studies textbooks should be demanded on the basis of factual data and research results, which would contribute to a better mutual understanding of Korea and Japan. Consequently, it was recommended to continue to analyze the content of school textbooks and to exchange scholarly opinions among concerned specialists, such as textbook specialists, editors and publishers, to resolve this critical issue.

16. ROLE OF SCHOOL MORAL EDUCATION: A SOLUTION TO MORAL CRISIS OF KOREAN SOCIETY

Yoo, Kyoon-sang
Cho, Nan-sim
Yoon, Hyun-jin
Yang, Hee-in
Chung, Min-ja

This study aimed to understand a moral crisis of Korean society, and to explore a desirable form of school moral education that could

revitalize the whole society. This report is the summary of the first part of the two-year (1992-93) project.

The first part of the project was divided into two sections. Section 1 included a survey of morality to examine the subjective consciousness of the public; an analysis of social conflicts to investigate external moral conflicts in Korean society; and an examination of juvenile delinquency and deviant behavior. The findings of the first part were as follows.

First, the survey of public morality revealed that the public shared an overall social consensus on communal values, but expressed great differences on individual interests. Demanding others to be moralistic, they often turned selfish on issues directly involving themselves. In addition, they deemed such traditional values as filial duty or respect for elderly people, and yet needed to fully internalize a modern concept of human equality. This study concluded that contemporary Koreans generally acknowledged the importance of moral values, but had troubles in forming a consistent and comprehensive system to organize such values.

Secondly, the analysis of group conflicts revealed the following characteristics. Major issues of contemporary Korean society were diagnosed as regional antagonism and conflicts between capital and la or. Within a basic capitalist framework, the relationship between management and labor is unbalanced; however, in case of Korean society, the goals of both parties showed a wide discrepancy, and a general and institutional procedure to resolve conflicts was yet to be founded. Regional antagonism did not appear to be a serious problem, for this

phenomenon was not so explosive as a class conflict. However, it has been a fundamental conflict that splits the nation, and therefore, should be perceived as the most serious problem.

A basic assumption is that social conflicts do not necessarily lead to a moral crisis. If a constructive resolution can be reached, they can even bring a momentum for great progress to Korean society. These conflicts can turn into a moral problem, however, when they remain unsolved, become worsened, and eventually function as an obstacle to a sound moral judgement and consensus of the public.

Thirdly, the most alarming factor in the current situation of an overall moral crisis was juvenile delinquency and deviant behavior. Recently, juvenile delinquency cases hardly increased; however, they have become more violent and spread into younger ages, while the number of cases related to drug abuse or overdose considerably increased. All of the phenomena have become serious pathological symptoms to disturb society at its root.

Section 2 included investigations on the standing of school moral education in contemporary Korean society undergoing a moral crisis (The standing of school moral education herein referred to the function, actual and expected effects of school moral education.); examinations on the role of and expectation for school moral education from insider's and outsider's viewpoints; and an evaluation of how faithfully school moral education had performed its proper duty of 'moral task' in contemporary Korean society undergoing a moral crisis.

First, the external factors to affect school moral education were identified as follows. Major factors to influence the substance of a

moral value system were religion, the development of capitalist economy, and the sociopolitical atmosphere of Korea. Social changes in the domains of society, and moral issues would necessitate a new direction for school moral education. An internalization of traditional virtues cannot cope with diverse value-related problems; therefore, a new form of moral education that can actively identify and resolve such issues is urgently demanded.

At the same time, the role and influence of moral education 'institutions' have been changed. A moral education function of homes and regional communities, which had been primary institutions of moral education traditionally, has been weakened or altered. On the other hand, the mass media, particularly TV, has emerged as an socialization institution that exercises a substantial influence on the moral maturation of children and youngsters. Consequently, with a share of homes and village communities in moral education declining, the significance of school moral education is emphasized more than ever. At the same time, however, it is challenged by the growing and destructive influence of mass media.

Secondly, this study examined the status of school moral education. Korean schools have constantly emphasized upon school moral education through officially defined principles of education and ethics/moral education curricula. In reality, however, Korean school education, particularly at secondary level, is predominated with preparations for college entrance examination, which overlooks moral education. Sometimes teachers of moral education lack confidence in a traditional assumption that students learn through the exemplary

conduct of teachers, which was influenced by western moral education theories and a new approach to the teaching career since 1980's that regards teachers as laborers. Consequently, an alleged reinforcement of moral education at schools has become a sheer slogan.

Lastly, this study examined the status of school moral education in contemporary Korean society undergoing a moral crisis. School moral education is naturally influenced by an overall moral crisis of society. On the other hand school moral education is expected to become a point of departure to cope with a social crisis. The reality of school moral education, however, is that it is short to meet such demanding challenges and expectations.

Therefore, we should understand the status of school moral education properly, analyze an overall structure of school moral education extensively, and explore constructive alternatives so that school education can fulfill the missions demanded by society. The tasks will be discussed in the following year.

17. A STUDY ON IMPROVEMENT OF KOREAN COMPOSITION (I)

Shon, Young-ai
Lee, Sam-heong
Lee, Sung-young

To guide composition instruction in schools, this two-year project aims to examine composition theories and to develop adequate student programs. This is the first-year research of the project to provide the

exploration of composition theories, and development and test of a preliminary program.

The theoretical exploration consisted of a review of the previous literature on characteristics and phased development in a writing ability; model/procedure of composition and content/method of composition teaching; and elements that affect composition. First of all, a writing ability was defined as a capability to perform a multiple process involving various elements, such as writer's knowledge, long-term memory process and creative thinking process, and circumstances of writer/reader. The developmental phases of composition were found to proceed from writing on the basis of simple association to linguistic presentation, communication, incorporation, and cognition. As for composition process, linear, cognitive, and parallel models were reviewed. Traditional composition studies depended upon the linear model. The cognitive model takes an act of writing not as a series of linear phases but as an accumulation of several sub-process the writer controls and arranges. The parallel model assumes a linguistic expression is made possible through processing information simultaneously in various sectors.

The elements to affect student's composition were largely divided into two groups: communication factors and restrictions on language structure and usage. As for the content of composition instruction, a particular concern of this study was a cognitive process of writing. As for teaching composition, this study reviewed two most traditional methods: giving assignments and pointing out errors on one hand, and not interfering with students on the other hand. A common trait of

these two methods was teaching none of "writing" at all. Efforts to overcome weaknesses of traditional methods resulted in systemizing the content and methods of composition instruction, which was manifested in direct instruction.

The researchers devised a preliminary program on the basis of a teaching/learning model that combined direct instruction and explicit instruction models. The theoretical grounds of this model is that the focus of responsibility in teaching/learning composition should be shifted from the teacher to the student. In addition, the acquisition of the principle and technique which are directly related to composition and actual writing practices should be emphasized.

This preliminary program was applied to an primary school for 4 weeks and to a junior high school for 2 weeks. Hwasan Elementary School in Chonju carried out and completed statistics of pre- and post-tests to confirm the effects of the program.

A summary of the findings was as follows. Students were asked to write four different types of composition: persuasive, narrative, descriptive and reporting ones. The writings were graded in three scales of high (3), average (2) and low (1) in four categories: adequacy to a given topic, richness of content, logical organization, and clear expression.

As for teaching composition, direct instruction was proven more effective than requiring assignments. In regard to composition types in particular, direct teaching technique showed a significant difference in effectiveness compared to assignment method. Only in case of a descriptive writing no significant difference was observed between the

two methods. In regard to categories of composition capabilities, direct instruction showed a significant difference compared to the other one in a category of adequacy to a given topic and logical organization. Neither of the two methods, however, contributed significantly to the improvement of clear expression, showing no considerable difference.

18. READ AND THINK: READING MATERIALS TO IMPROVE ENGLISH COMPREHENSION

Choi, Jin-hwang
Park, Ki-wha

This is an English reading material for junior high school students. A traditional error in teaching English reading comprehension in Korea was overemphasizing grammar and translation. Hence, reading comprehension was even regarded as identical to translation. Reading, however, literally means understanding the content of a written text. It also means teaching a pattern to comprehend ideas through a language, and cultivating an ability to think in that language. Korean students, for the most part, learn English in classroom, and therefore a proper reading instruction may be the easiest way to help students acquire an ability to communicate.

Unfortunately, however, textbooks are the sole resource of reading for Korean students up to junior high level. It is quite difficult to

locate any reading material of an appropriate level when a student is willing to study more than textbooks. In addition, it is even harder to find adequate reading materials among existing ones that can guide students to a right direction.

A full recognition of the above problems in teaching English reading comprehension brought about the development of this material. It emphasizes not merely translating but understanding the meaning of the text, providing various tactics such as diverse questions, interesting games, problems for further thought and points of debates.

Teachers may use this material as a teaching aid or guide for appropriate reading instruction. Various patterns of questions suggested here may be utilized in reading evaluation. Students may use this as a supplementary reading to textbooks and a means to learn a proper way of reading.

19. A STUDY ON IMPROVEMENT OF CAREER EDUCATION IN JUNIOR HIGH SCHOOLS

Yim, Doo-sun

To determine how to improve career education in junior high schools, this study examined and analyzed several aspects of career education, particularly curriculum, guidance, extracurricular activities, career information sector, in-service training, school administration, support for research, and parental guidance. The findings of the study and several recommendations were illustrated as

a result.

The primary concern of the study was grasping the practice of career education at individual schools, surveying the opinions/ demands of teachers/students, and incorporating through surveys and consultations the opinions/demands of administration and research specialists as well as career education teachers at the schools selected for a pilot career education program.

A survey of 322 teachers, 2,039 students, and 60 administration and research specialists on the reality and necessity of career education resulted as follows.

1. Career Education within Curriculum

a. 80% of teachers responded they practiced career education in curriculum, while 51% of students answered they received any.

b. academic subjects involving career education (in order):

* teachers: business education - moral education - Korean - English - social studies - Korean history - science - mathematics - fine arts and physical education

* students: moral education - business education - electives - Korean - arts and physical education - social studies - science - mathematics - English - Korean history

c. students' opinions on the beginning grade year(s) for career education (in order): all grades - 8th grade - 9th grade - 7th grade

d. students' opinions on a desirable teacher of career education

(in order): veteran teacher - class teacher - teacher of each subject - young, aspiring teacher - principal or vice principal

e. students' opinions on effects of career education on the exploration and decision-making in students' own career (in order):

* two thirds -- small effect
* one third -- split between 'no effect' and 'some effect'

2. Career Education in Extracurricular Activities

a. responses of two thirds of students and teachers: no inclusion of career education in extracurricular activities

b. effect of extracurricular activities on the exploration and decision-making in own career: negative responses in general; 50%, small effect; 25%, no effect; 8%, significant effect

c. a teacher responsible for extracurricular activities: mainly a teacher of each subject or a class teacher

3. Career Education in Guidance

a. 85% of teachers responded career guidance was practiced, while 73% of students replied negatively.

b. occasion of career guidance (in order): upon student's request - regularly - upon parents' request

c. form of career guidance (in order): individual guidance - collective guidance - consultatory guidance of a student and parents

d. location of career guidance (in order):

classroom - teachers' room - counseling room - others;

83% of students responded they never visited a counselor.

e. career guidance teacher (in order):

counselor - class teacher - disciplinary teacher - volunteer;

two thirds of schools replied they had no career guidance teacher

f. a substitute to a career counselor (in order): class teacher - counselor - volunteer - disciplinary teacher

4. Information Resources for Career Education

a. information available at school (in order): education - career/occupation - personal concerns and society - others

b. information demanded by students (in order):

preparation for high school admission - career/occupation - personal concerns - daily life - study - society/nation

c. informants (in order): high school pamphlets - government publications - educational newspapers - TV/radio

d. quantity of information resources available at school:

52% of teachers responded insufficient.

5. Teacher Training for Improvement of Career Education

a. 72% of teachers responded they received no teacher training in career education.

b. occasion of career education training (in order):

private training offered by schools - general training - qualification training

c. necessity of career education training:

90% of teachers agreed upon its necessity.

6. Parent Training for Better Understanding of Career Education

a. two thirds of schools provided parents with a training program for awareness in career education.

b. frequency of parent training in career education:

90% replied once or twice.

c. instructor of career education (in order): principal, vice principal - career education specialist - education researcher - college professor

d. necessity of parent training in career education:

90% of parents responded affirmatively on the necessity.

7. Supervision and Guidance for Career Education Support

a. 40% of teachers responded they received supervisory guidance or advice on career education.

b. 55% of teachers at pilot schools of career education responded positively, while 61% of teachers at other schools did negatively.

c. provider of supervision and guidance in career education (in order): educational supervisor - educational researcher

8. Career Guidance at Home

a. consultant for career decisions (in order): mother - father - siblings - relatives - uncle (aunt)

    * boys: father - mother - brother

    * girls: mother - sister - father

b. content of consultation (in order): better achievement - future career decision - choice of field (humanities/sciences) - exploration of aptitude or interest

c. consulting circumstances (in order): Student's opinion is observed - parents' opinion is forced - parents make a decision - student makes a decision.

    * Boys are often forced to observe parents' opinions, while girls often have to follow parents' decision.

Conclusion: Directions to Improve Career Education

Based on the findings, the researchers reached the following conclusions on how to improve career education in junior high schools.

Prerequisites to the improvement and efficiency of career education in junior high schools are concerns for its correlation, continuity, hierarchy and consistency with other school levels--primary, junior high and high schools as well as colleges. Considering educational and social conditions of Korea, the decision-making on choosing a high school during junior high school years can be critical for an individual's life. The recognition of urgent needs for career

education in junior high schools was the grounds of this study. A few alternatives revealed in this study are measures to improve career education, rather than extensive remedies for various chronic issues in every educational sector.

1. Career Education in Curriculum

a. systemization of educational objectives, content and methods

suggestion 1: Educational objectives, content and methods of career education should be systemized by each grade.

b. specialization in career education by each subject teacher

suggestion 2: Since every subject is related to career education, teachers of various subjects should become specialists in career education as well.

c. reinforcement of career education in extracurricular activities

suggestion 3: Career education in extracurricular activities should be reinforced for students to discover their own interest, aptitude and capacity.

2. Career Guidance Operation

a. appointment of full-time teachers for career guidance

suggestion 4: A full-time teacher for career guidance should be appointed at every school to assist students with career exploration and decision-making.

b. establishment and operation of a career guidance office

suggestion 5: A career guidance office should be established and operated to provide students with educational guidance, occupational guidance, counseling for student life, and information about a prospect of changing world of industry.

c. reinforcement of career information resources

suggestion 6: To assist students in their career exploration and balanced decision-making, schools should be able to collect timely, accurate, diverse and sufficient information of relevant fields; classify them appropriately; and provide them to students when requested.

3. In-Service Training

a. reinforcement of career education training for teachers

suggestion 7: Since the accomplishment and efficiency of career education depend upon the teacher, in-service training in career education and guidance for teachers should be reinforced.

b. reinforcement of career education training for parents

suggestion 8: Career education training for parents should be also reinforced for a higher efficiency of career education.

c. in-service training for educational specialists

suggestion 9: Professional training in career education and guidance should be provided for educational specialists who develop and disseminate to schools various information resources and teaching/learning materials.

4. Educational Administration and System

a. establishment of a supervisory post in career education

suggestion 10: Current research positions in the career education research division of Educational Research Institute (ERI) should be changed into supervisory ones in the Board of Education for administrative potency.

b. establishment of 'career education' and 'career guidance' courses in teacher training institutes, and issuance of appropriate certificates

suggestion 11: 'Career education' and 'career guidance' courses should be established and required at teacher training institutes, such as schools of education and teachers' colleges. Appropriate certificates should be issued to those who complete such courses.

c. initiation of a chief teacher system in career education at various educational levels

suggestion 12: The chief teacher system in career education should be initiated to ensure administrative potency, systemization, and effective application.

5. Research and Resource Development

a. continuing support for research

suggestion 13: A continuing support is necessary to ensure the consistency and well-planning of fundamental, applied and policy-making research on career education, and eventually to activate

and refine career education.

b. effective planning for resource development

suggestion 14: Suitable resources for career education and guidance in school setting should be designed and developed efficiently on the basis of fundamental and applied research.

B. EDUCATIONAL FOUNDATIONS

RESEARCH CENTER

20. COMPREHENSIVE UNDERSTANDING AND FUTURE PROSPECT OF KOREAN EDUCATION (III)

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Lee, Yong-sook
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1. CURRICULUM AND CONTENT OF EDUCATION

This study aimed to examine the characteristics and operations of the current curriculum and to design a desirable one for future. If the educational administration system, including the Ministry of Education, Board of Education, and educational institutes including schools, may be called the "hardware" of education, curriculum can be called the "software" of education. Schools, education specialists (including teachers, supervisors, directors and researchers), education administrators (including principals and vice principals), and general administrators at the Ministry of Education and the Boards of Education exist to achieve specific educational objectives through curriculum. In addition, various educational institutes, laws and support systems may also become meaningless without curriculum.

However, despite that curriculum should be the backbone of education and the fundamental guideline for every educational system and administrator, the significance and function of curriculum are yet to be fully recognized. Useless to say, educational administration

exists for teachers, and teachers do for students; however, it is difficult to deny that the reverse is rampant. The establishment of curriculum is often considered a matter of interest that concerns only a related bureau in the Ministry of Education, which reflects the reality of Korean education. As a result, curriculum itself that is adapted by the Ministry fails to suggest such practical means to mobilize human and material resources and to furnish necessary provisions for the achievement of proposed educational objectives.

This does not mean that the Ministry altogether neglects to consider such issues. However, often each sub-division of the Ministry examines independently and separately such issues when an organic, unified approach is needed. Therefore, the reorganization and reunification of this lower structure of the Ministry in relation to curriculum is the most urgent task to be taken by the Ministry for the future of Korean education.

Based on the recognition, the following directions for Korean education were recommended.

1. Decentralization and localization of curriculum

1) The Ministry of Education should be changed from an imposing to a cooperative and coexistent organization.

2) Curriculum guidelines that the Ministry issues to city/province boards of education and individual schools should be practical and specific, instead of being obscure and indefinite.

3) A tendency to forget educational objectives in curriculum development should be avoided.

4) A systematic device is needed to improve teachers' sense of commitment.

5) It is necessary to encourage and support teachers' voluntary activities and research.

2. Diversity, flexibility and coherence in curriculum operation

1) The operation of non-graded schools, open schools and experimental schools should be allowed on the basis of diverse viewpoints in values and education.

2) Fixed ideas about the teacher should be changed.

3) Fixed ideas about classroom instruction should be changed.

3. High-quality textbooks and reasonable textbook system

1) An illusion that curriculum means only textbooks should be abandoned.

2) The most urgent task is to provide schools with basic equipments, such as library, audio-visual room, computer room and operation room.

3) The rights to supervise, approve and select among various educational materials including textbooks should be divided.

4) Regarding the acquisition of textbooks and learning aid materials, a systematic device to discourage bribery for purchase order and other monetary exchanges at their roots.

5) To prevent publishers of textbooks and learning aid materials from making students buy "revised editions" by adding few minor changes and changing the jacket, a revised edition should be approved only when

a substantial change is made to the content of previous editions.

4. Capability education for creativity and usefulness

1) The focus of education should be moved from teaching to learning, from teachers to students.

2) To maintain proper level of education, an objective evaluation is still needed.

3) The kind of education offered by teacher training institutes should be transformed.

6. Internalization and habituation of basic moral regulations

1) Simple, refined school environment should be established.

2) The environment surrounding schools and the sites to accommodate students' sound extracurricular activities should be improved.

3) Physical fitness and endurance programs need to be reinforced.

4) To help students internalize and habituate fundamental social rules, specific moral regulations should be selected and taught with a strong emphasis.

5) Readings for cultural refinement should be made a requirement.

6) An interest in an art field for each individual should be required.

2. CURRICULUM AND TEACHING METHODS

This study used research methods of participant observation,

textbook analysis, in-depth interview, survey, and diary analysis. Based on the collected data, this study examined problems in the curriculum and teaching methods at primary and secondary levels of education, and discussed their causes and possible solutions for improvement. The curriculum in this study includes not only 'official curriculum' offered to students through classroom instructions and commentaries but 'hidden curriculum' students get to learn unconsciously through school life.

Chapter I included research methods, discussions about 'how to evaluate the quality of education,' and a determination of three evaluation standards, such as 'developing creativity,' 'developing cooperation' and 'developing self-reliance,' for Korean education. The first two values are commonly pursued in the curricula of Korea and other countries, and the last is stressed in Korean national curriculum.

Chapter II examined the characteristics of knowledge students acquire at school. Observations of teaching and learning in classrooms revealed that students of elementary, junior high, and academic/ vocational high schools officially learned fragmentary facts about trivia; selective and memorized knowledge for examinations which can be safely forgotten; and true-false knowledge of dichotomy. An encyclopedic content of official and approved textbooks, a normative evaluation system based on objective questions primarily out of textbooks, and interactions between an unindividualized and didactic teaching style and a cramming one were found to be immediate causes of this phenomenon.

Although most Korean schools share these problems, the curricula and teaching methods appeared slightly different at each school level. An unindividualized didactic teaching style was commonly observed in every school; however, the degree of implementing a cramming style was different for each school level. Elementary schools, which are relatively less concerned with preparations for college entrance examination, began to implement student-centered teaching method in a few disciplines, such as Korean language and science, gradually eliminating a cramming teaching method. On the other hand, some outstanding teachers at academic high schools, who were to prepare students for the imminent college entrance examination, were conducting 'baby-gruel type of instruction' that had been efficient to raise the pass rate. This teaching method, however, is another peculiar form of cramming style. In junior high school education, neither remote nor close to preparations for college admission examination, a cramming style of instruction was conducted in most classrooms.

Chapter III discussed that experiences at school, where 'uniformity' and 'hierarchy' is a 'core culture,' taught students a hidden curriculum of the following values: (1) uniformity, (2) authoritarianism and conformity, (3) formalism and result-oriented conception, (4) conformity to violence, and (5) comparison-oriented self-esteem and conformity to competitive relations with peers.

Chapter III also examined how such uniformity and hierarchical relationship was associated with the overall sociocultural structure and historical experiences of the nation. (Official curriculum and teaching methods were also considered to be existing within the

context of Korean sociocultural structure.)

As shown above, the official and unintentional curriculum and teaching methods revealed many problems in Korean education. However, the problems can be changed any time. In fact, continuing efforts for improvement have been made by the government and individual schools, and, as a result, many successful cases have been observed. Chapter IV provides two cases which were innovative and successfully implemented to school education. They revealed both the promises and limitations of changes.

The improvement of Korean language education at national level, following the revision of national textbooks on the basis of the 5th Curriculum Reform, illustrated that an attempt at a governmental level could bring about a nationwide improvement of education in a short period of time. However, due to limitations in curriculum operation and textbook revisions, this attempt could not overcome an unindividualized didactic pattern.

On the other hand, an introduction of 'open education,' although conducted only at a small number of elementary schools now, is a positive signal, for it overcame for the first time the stronghold of an unindividualized didactic teaching style that had been maintained since the late 19th century. The curriculum and teaching methods of open education, compared to the conventional method, can be more effective in achieving the three standards of 'developing creativity,' 'developing cooperation,' and 'developing self-reliance.' (The degree of effectiveness may differ according to the actual practices of individual teachers.) However, the problems of current open education

are that materials for an individualized, independent learning are insufficient, and individualization is possible only within a unit of a given textbook due to the uniformity in curriculum, textbooks and evaluation system of Korean education.

Chapter V explored anticipated changes of future society that were closely related to curriculum and teaching methods. The five selected aspects were (1) global trend towards information-oriented society and development of education technology; (2) transformation of industrial structure to a reciprocal creative production that is led by a large number of experts equipped with professional knowledge, creativity, communication skills, and decision-making ability for a better choice, organization, and information in each field; (3) transformation of population structure (decrease in the total number of students, increase in the percentage of working women, and increase in the highly educated elderly population); (4) transformation of the relationship between the North and South Korea; (5) intensification of trade conflicts; and (6) extension of democratization and local autonomy. Such social changes will demand changes in curriculum and teaching methods, including (1) rich individualized curriculum to develop creativity; (2) diversified, individualized and student-centered teaching methods; and (3) practical values focusing upon developing cooperation, responsibility, and spontaneity.

The recommendations to accomplish such changes are (1) textbook and curriculum revisions; (2) diversification of curriculum (content of classroom instruction) through changing arrangements of learning groups; (3) introduction of topic-oriented teaching and research-

and/or investigation-oriented assignments; (4) reform of evaluation system; (5) reform of computer education; (6) reform of teacher training methods and improvement of working conditions of teachers; (7) reform of organizations of class hours; (8) reform of student guidance during break times and; and (9) downsizing of schools.

3. STUDENT LIFE AND CULTURE

Enriching and refining student life and culture are indeed notable goals of education. This study examined what kind of life students were leading at schools; what kind of culture they were creating and enjoying; what signs of change their life and culture indicated lately; and what educational endeavors were necessary to assist them.

Chapter I explored physical and mental changes in students, and reviewed the opinions of parents and teachers on such changes. Parents and teachers shared a view that the younger generation were selfish and self-centered. Students agreed upon their individualistic inclination; on the other hand, they revealed not too a positive view on teachers and the older generation. This generation conflict intensified mutual mistrust among teachers, students and parents. This phenomenon is predicted to become worse in future, for it has started from metropolitan areas populated by the middle class. To prevent this change in students, schools should take the initiative by promoting mutual cooperation and commitment to community among teachers, students and parents. This first step should begin with recovering mutual trust.

Chapter II examined the impact of the educational milieu centered around college entrance examination on overall student life and culture, and the change of that milieu caused by a decrease in the enrollment and changes in employment structure. This educational milieu focused upon entrance examination had merits of holding students to their proper obligation of study and improving to some extent students' self-control and self-discipline. On the other hand, it reinforced students' self-centeredness and improvidence, and exercises a great influence on their incapacity for in-depth meditation or contemplation. The college admission system has been changing to grant each college a right of independent screening; the number of children entering school decreases; and the college admission quota increases. All of these changes will greatly ease competitions for college admission test. The problem was that no program had been developed at all to prepare for this decline in zeal for study and school hours. Therefore, each school should make efforts to cultivate senses of responsibility and cooperation in students through devising and providing various opportunities for students to plan and practice their own undertakings.

Chapter III were provided with the formation, function and changes of peer group. Despite the fact that students can cultivate and practice such virtues as solidarity, self-devotion, and consideration for others through forming and participating in a peer group, the peer group activities have often been discouraged. The negative perception among parents and teachers of peer group activities is a significant factor contributing to its decline. In addition, a diversification of social classes and an increasing financial burden of private tutoring

resulted in splitting a peer group. This functional divergence of a peer group limits opportunities to experience profound human relationship. To overcome this problem, peer group activities should be further supported through setting unofficial group activities.

Chapter IV included students' recreation activities and leisure culture. Because of a preparation for college entrance examination, students had very little leisure time, half of which was spent on watching TV. Due to the lack of sound leisure environment, their pastime activities were also degenerated into deviant entertainments. However, there have been attempts to eradicate a negative conception about pastime activities through combining study and play, and to examine existing forms of entertainment and incorporate selected ones into a sound amusement culture. When these endeavors become extended and supported by government policy, games will be able to contribute considerably to improving students' characters and capabilities.

Chapter V examined students' misconduct and changes, and investigated various efforts to overcome this problem. Compared to the cases of misconduct committed by students from a deprived and/or low-income family, the cases of misconduct by students from a normal to high-income family are gradually increasing. Apparently, the degree of deviance has been escalated and the age level younger. Along with increasing self-destructive behavior, such as drug abuse, the cases of pessimism, a phenomenon of extreme escapism from learning, have increased.

Counseling at school was neglected due to an emphasis on academic instruction, and the outside environment surrounding schools is plagued

with various pleasure-oriented facilities. On the other side, however, there was a growing awareness of the necessity in collective communal efforts to counsel students and break up deviant groups. At the same time, a conception about students' deviant behavior among the older generation, namely teachers and parents, was changing as well. It was recommended that measures against students' deviance and deviant culture take a chance on this momentum of changes.

On the basis of the above observations on student life and culture and their changes, Chapter VI explored a desirable student culture for future and policy measures to support it. The conclusion was that schools of future should focus upon virtues of self-sacrifice and devotion in personality education instead of rationality and selfishness, and should function as the center of the given regional community. To achieve these goals, efforts should be made to eradicate anonymity through downsizing overcrowded classes and oversized schools, to offer diverse programs to teach a sense of communality, and to activate various student organizations to help students cultivate self-sacrifice and devotion. Throughout this process, the role of the school principal is considered most critical.

4. TEACHER AND TEACHING ENVIRONMENT

A quality school education for the development of intellectual capability and morality is not directly influenced by the quality of interactions between the teacher and the student within a classroom, although various factors around school education is at work, such as

the school system, college admission system, educational administration and financing, and parents' support. These interactions are led by the teacher who offers a revised curriculum after reorganizing it to suit the student, and therefore, the teacher, other than any other factor involved, takes a core part in determining a quality school education for the development of intellectual capability and morality.

This report aimed to examine the actual conditions of the quality of teachers and teaching environment and their changes, and to envision their future in the aspects of teacher quality, teacher education, teacher development, teacher recruitment, decision-making process at school, and 'feminization' of a teaching profession. In addition, this study outlined how to enhance teaching environment and how to improve teaching effectiveness for a quality school education for the development of intellectual capability and morality.

The quality of teacher prospects appeared to be gradually improved in recent years both in ability and attitude. An examination of the variation in the base-line admission score to speculate changes in intellectual quality revealed that the score had risen relatively high since the 1980s. An examination of the motive in choosing a teaching profession indicated that the younger teachers intended to answer the choice as an affirmative decision based on merits of teaching. However, it was assumed that a teaching profession was unlikely to attract competent labor force in future society based on an advanced industry structure. To secure the influx of well-qualified applicants into the profession, therefore, strong efforts should be made to make it attractive.

The process of teacher development and growth through experiences of in-class instruction, counseling, class administration, and human relations within the teaching community showed that it did not necessarily lead the capability and attitude of the teacher to a positive direction. After a few years upon appointment, a considerable number of teachers often neglected research on the course to be taught and consideration for and devotion to individual students, and failed to constitute a strong commitment to the development of students' habits, value system and personality. Therefore, to enable teachers to confirm senses of self-affirmation, self-esteem, and identity during the socialization process, teacher training program should be classified for each educational and school level to heighten professionalism, and the orientation period prior to appointment should be reinforced substantially to provide sufficient training for school education.

The transfer of teachers among and within schools implied a growing tendency towards objectivity and equity. To objectify and equalize personnel management increases teachers' confidence in the system, and in turn, helped them commit themselves to teaching with self-assurance. The personnel management of teachers in future, therefore, should consider teaching and counseling capabilities, rather than administrative and bureaucratic skills, as major evaluation standards, and give different rewards according to one's work load to promote an aspiration for student teaching further.

The decision-making process at school was centered around school administrators and closed to the public in the past. Lately, however,

teachers have actively participated and proper standards in decision-making have been established. Such changes resulted in an mobilization of teaching environment, but it seems difficult to say that they would improve the quality of school education as well. A desirable pattern for the decision-making process of future, therefore, appears to be the one centered around mid-level administers that can activate teachers' participation while allowing the head teacher of each discipline or class year to firmly control overall activities of general teachers.

The number of women teachers in Korea has increased rapidly since the 1980s, and the teachers' community has been changing from a male-dominant to a female-dominant one. The intelligence and devotion of women in teaching profession was just as high as those of males; however, some of them may probably neglect teaching since female teachers are expected to complete household chores as well. When females occupy the majority, an overall atmosphere may change from a progressive to a passive one, focusing upon 'doing a given assignment well' instead of 'taking an initiative.' To create an atmosphere where schools operate smoothly and an individual teacher performs his/her assignments with enthusiasm even after females occupy the majority in the profession, it is necessary to retain the fervor of male teachers by rewarding teachers in terms of assignments, and to enable female teachers to fully demonstrate their capabilities by expanding welfare system.

5. PARENTS AND EDUCATION OF CHILDREN

Parents in modern times are subject to a social, economical, political, and cultural environments which are different from those of earlier periods. Such changes in living conditions also influence parents' consciousness, parent-child relationship, educational environment for children, and parents' attitude toward children's education. This study aimed to examine how parents manage children's education under changing social, economical, political and cultural conditions; what attitude parents should take for children's harmonious development of capability and character; and what institutional endeavors school, society and the state should take to help parents perform proper roles.

Chapter I first reviewed parents' awareness of education. Among various approaches to an awareness of education, this study adopted two aspects that were thought most important in Korean education. Part 1 examined parental zeal for education that characterized Korean education succinctly. Part 2 reviewed senses of right and responsibility among parents which would be a focal point of local autonomous education.

Chapter II examined the features of parental participation in school education, which takes in various forms. In particular, an official participation through parents' organizations, such as the Supporting Association or the Mothers' Association, was examined (Part 1); informal participation through individual communication channels, such as consultations with (vice) principals or teachers, suggestions,

complaints, etc. (Part 2); and parents' movements beyond each school unit as social movements (Part 3).

Chapter III investigated the feature of children's education provided by individual families, specifically the parents' education of children at home (Part 1) and the pattern of their sending children to a tutor or private institutes (Part 2) were reviewed.

Chapter IV explored possible changes in parental education of children (Part 1) and devised future prospects in the direction to encourage among parents sound consciousness about children's education, constructive participation in school education, and desirable guidance of children at home (Part 2).

An analysis on the results of Part 1 of Chapter I indicated that all parents, regardless of their educational levels or social classes, wished their children to receive higher education, but the type and level of higher education were enormously different among various social classes. As for the middle class, demands for four-year college or advanced education were projected to be continued. On the other hand, demands for junior college education were expected to increase among the working class, the urban marginal class and farmers, leaving only the middle class in a severe competition for four-year college admission. In other words, the class difference in demands for education will no longer be a choice between a high school diploma and a college degree. Instead, children of every class will want higher education, and it will be a choice between junior colleges and four-year colleges, or between a college degree or a graduate degree. Particularly, the diversification of demands for higher education will

be most distinctive between the middle class and classes below the working class.

In addition, the results of the analysis on this part implied that the selection criteria of colleges or universities would be changed from the prestige of school (in the past) to the field of study. In other words, parents tended to consider children's aptitudes and employment prospects, rather than the name value of colleges. This tendency was stronger among parents with higher level of education and socioeconomic status.

The results of the analysis on Part 2 indicated that parents' zeal for education in Korea was limited to preparation for college entrance examination, and failed to participate in school education to secure the better school environment and higher-quality education for children. In other words, Korean parents were aware of a considerable degree of the necessity of their participation in overall school operations, but were reluctant to join a parents' organization to exercise their own rights. They showed a high tendency of individualism, thinking someone should be a parent representative and participate in decision-making process of school education, but not willing to take the role for themselves. This tendency was stronger among those with higher level of education and among the middle class than the working class.

Chapter II included the parental participation in education which had become more active than before but still remained passive both in official and unofficial aspects. In case of the School Support Association, there was virtually no volunteer to take an executive

post. Parents disliked a forced decision, but this association could not have been initiated at all if school had left parents as they were. Personal interactions between teachers and parents were not quite smooth, either.

A survey of parents indicated that less than 20% of them consulted with teachers on educational problems of children for the past year, and most of these communications were just customary greetings at a parent meeting called at the beginning of a year. A suggestion for children's education or a complaint about an unjust treatment was hard to find. Consequently, both teachers and parents were deprived of a chance to acquire information necessary for education, and become subject to an unfair handling or build up mutual distrust, lacking an opportunity to resolve unnecessary misunderstanding.

Despite the necessity of dialogue between teachers and parents for appropriate education, the distance between two parties often kept from communications. Teachers and parents both replied affirmatively about teacher's attitude in case a parent actually made a consultation, suggestion, or complaint. Most parents with an experience of conferring with the teacher believed that they were benefitted from the conversation. Nonetheless, prental participation appeared to remain passive. Its four major causes can be summarizes as follows: lacking a sense of participation; monetary burden in joining a parents' association or meeting with a teacher; deprivation of opportunities for participation; and worrying tat communications with the teacher might affect their children negativly.

On the other hand, recenly organized parents' movement bodies at

social level were expected to contribute greatly to an active participation of parents in school education. The National Parents' Organization for Genuine Education and the Parental Coalition for Realization of Humane Education have raised educational issues continuously through training, research/survey, publicity/ publication, counseling, and cultural activities, and explored possible solutions. Their eventual goals were to reflect parents' opinions in the governmental policy-making process, to disseminate proper methods for children's education, and to constitute a sound educational environment. Founded in 1969, the Organization to Support Local Schools (OSLS) has carried out systematic activities to help form public opinions about educational problems. Although not a lobby group to influence policy-making, it has already been proven a powerful authority in linking local school support movements to school education. Recently founded parents' organizations are mainly operating outside school, failing to infiltrate into the school setting, and the activities of the OSLS will be a possible model. Besides devising measures to inspire activities within school, these organizations have tasks to organize the movement, to clarify and specify desired goals, and to transform an association to represent opinions of not only the highly educated middle-class but the lower-class ones.

Chapter III provided an analysis of parents' attitude toward children's education at home. Parents expressed the greatest interest in manners, personality and study and the least interest in hobbies, leisure and physical fitness of children. A survey of motivations for getting a tutor for children or sending them to private institutes

showed that only 14.5% of parents marked goals of recreation instruction or physical fitness, and even the percentage at primary school level was still as low as 23.5%. At primary level, the number of families sending children to a tutor or a private institute for better grades (at school now and at college entrance examination eventually) occupied more than a half at every social class level, and was more than half at junior high school level. This implies that our children fail to learn how to use their leisure, and therefore, cannot but experience difficulties in forming a sound leisure culture.

As for education of value system, Korean parents emphasized private ethics like propriety, filial duty and diligence over social ethics like public service, assertion of law and order, loyalty and cooperation. This result was identical to that of a survey in 1984 by Hyundai Social Research Institute, showing that teaching of Korean parents were short to encourage citizenship for their children.

Guiding children in learning was an area that parents expressed greatest concern. Parents were busy helping children in lower grades (from 1st through 3rd grades) with assignments, preparation for and review of classes, and other tasks that were considered to be useful to school education. Student's academic achievement varied according to parents' guidance. Child's grades during this period were often called "mother's grades." On the other hand, among children in higher grades (4th grade and up) parents' capacity to guide with learning varied much according to their background. More of individual abilities and efforts and less of parental influence affected child's academic achievement. About this period those parents turn to be realistic about children's

academic achievements which they used to think excellent. With children proceeding to higher grades, parental guidance with learning becomes indirect. Instead of sitting down with children and teaching them directly, parents begin to support their study indirectly by providing learning aids, checking study hours, endeavoring to form a comfortable environment to study, and taking care of health.

Based on the above analyses, a summary of expected changes in children's education was provided in Chapter IV as follows: (1) inflated expectation for children's education level and diversified choice according to one's social class regarding higher education; (2) increasing necessity for and legitimacy of parents' participation in school education and a continuing tendency of individualism in parents' participation; (3) decline in educational and protective functions of family; (4) increasing criticism and self-reflection about school education dominated with preparations for college entrance examination; and (5) increasing necessity for parental guidance.

In addition, to encourage among parents a sound consciousness, constructive participation in school education, and fruitful guidance at home, this chapter suggested six directions as follows and specific considerations for each direction: (1) from passive, individualistic activities to active, community-oriented ones for parents' organizations; (2) diversification, autonomy, institutionalization, and coalition in these activities; (3) activation, openness, and formalization of teacher-parent individual communications; (4) from selfish to productive communications; (5) organization, elaboration, and specialization of parents' movements as social drives; (6)

reinforcement of educational/protective functions of school and family; (7) change of the parental guidance goal from preparations for college entrance examination to development of sound character; and (8) reinforcement of parents' education.

6. EDUCATIONAL ADMINISTRATION/FINANCE

This study was the final part of the three-year project entitled "Comprehensive Understanding and Future Prospect of Korean Education (III)" that began in 1990. To understand the present status and to predict the future prospect of primary and secondary education in Korea, this project has used two different approaches: by fields of education, namely as curriculum, classroom instruction and educational administration/finance; and by concerned parties of education, namely teachers, parents and students.

This study aimed at a comprehensive analysis and classification of problems in the administration/finance fields of Korean education. In Chapters I through V analyses were conducted on the standing and problems of decision-making right, administrative organization and tasks, administration environment, investments, and conditions of Korean education. In Chapter VI suggestions were made on educational administration and financing prospects for future.

Chapter I was provided with analyse on (1) how a decision-making on educational policy and system operation was shared among the national and local governments and different administrative bodies; (2) how well the participation of teachers' and parents' organizations were

ensured; (3) how government organizations at national level, such as the Ministry of Education, and advisory organizations, such as the Central Educational Council and the Commission on Educational Policy, participated in the decision-making process of educational policy; and (4) how governmental organizations at local level, such as the Board of Education, were related to the superintendent, and the relationship between these two organizations and local autonomous groups. In addition, the division of a decision-making right among different units of educational administration, such as the Ministry of Education, the Board of Education, and an individual school, as well as the participation of teachers and parents were examined.

Chapter II included the analysis on the division of function/labor among educational administrative organizations, and the status and problem of the administrative system in preparation for newly introduced local self-governing education system and changing demands for educational administration. The major issues were the nature and problems of projects by the Ministry of Education that were aimed to reassign functions for different administrative levels following the enactment of the local self-governing education system; what aspects of administrative bodies at different levels would turn out inadequate if the dispersion of authority was continued; and how to cope with changes in demands for educational administration.

Chapter III diagnosed the current educational administration environment in the following three aspects: management-oriented administration, authoritarian imposition on lower-rank units, conflicts between two groups with professional and general posts; the traits of

management-oriented administration and authoritarian environment, the background of their emergence, and their influence on school education; and the forms and causes of conflicts between two groups with professional and managerial posts.

Chapter IV analyzed the status and problems of educational investments. Also illustrated were the fraction of public educational expenses by bearers and the scale of private educational expenses, the distribution structure of educational expenses, and problems in educational investments in light of educational conditions.

Chapter V included the status of educational conditions. Different spheres of educational facilities, such as the number of teachers, the acreage of school, building facilities, teaching tools/equipments, were examined in relation to current laws and regulations. In addition, the status of investments for facilities and equipments were explored.

On the basis of the above analyses, Chapter VI suggested the future prospect of educational administration and financing. This prospect began with two fundamental premises. First, it should grasp signs of change in present education and devise measures or actions to lead such changes to a positive direction. Secondly, it should identify barriers to educational progress and formulate measures to remove them. Based on these premises, this chapter established desirable directions for future educational administration/finance as the dispersion and redistribution of a decision-making right, the improvement of rationality and professionalism in administration, the expansion and rational operation of financial resources, and the modernization of school facilities. In conclusion, several tasks to achieve these goals

were recommended.

7. FORMAL EDUCATION AND SOCIAL SELECTION

This study attempted to evaluate how well the current formal education system of Korea worked as a major tool of social selection and to suggest several points of consideration in order to improve the effectiveness of formal schooling as a screening device. In pursuing such conventional issues as the role of formal schooling and social selection, this study took slightly different approaches from previous studies undertaken with the same title.

Problems in Korean education, brought by college admission test, were the core of all educational ineffectiveness of Korean schools and related to other serious problems surrounding education. Therefore, most of the previous studies on education and social selection have been mainly focusing on the college entrance examination system and dealt with its problems, causes and impacts. This study reached conclusions in agreement with earlier ones on several points: The current college entrance examination system was only a part of educational selection; the problems related to the college entrance examination were closely interrelated with various social, historical, economical and cultural factors; and therefore, any effort to solve its side effects should be accompanied by improvements of such societal factors.

Agreeing on all of the results and taking them as presuppositions, this study attempted to evaluate educational system itself as a tool

of social selection.

Despite many problems and side effects, screening process was an inevitably essential part of public education in any industrial society. Then, the question is how well the current education system in Korea works as a social selection process. This study began with this fundamental ques on. In Chapter 2 an answer to this question was attempted in the form of the educational and social significance of the screening function of school education in modern industrial society. In comparison with foreigners regarding general thoughts on the role of education in social selection, Koreans put special values on education, which was investigated in the last part of the chapter.

In Chapter 3 points were made on the problems in the current screening system, including much debated issues surrounding college entrance examination system. Recommendations on basic directions were made to be considered in designing education reform for better future. Some patterns of social changes were observed in every industrial society, which would expectedly affect education system and common trends were found in recent educational reform movements in the U.S., the U.K. and Japan. Then, some symptoms of social changes already observed in Korean society were explored through a review of the previous studies and an analysis of empirical data collected through interviews and questionnaire surveys. Based on all of the above methods, this chapter concluded upon four principal directions to observe in revising a screening system for the upcoming second decade of the 21st century as follows:

First, previous proposals to reform screening system have largely

focused upon changes within the college entrance examination; however, to reduce side effects and many other social problems caused by college entrance examination and to restore their proper screening functions, overall reforms should be made in every corner of education system, not just within the college entrance examination system.

Secondly, social ideology, objectives of publicly financed formal schooling, and philosophical grounds of education should be more clearly established to serve as principles in making decision on special educational policies.

Thirdly, school education should be changed from the current system, which is mainly concerned with academic high schools and college applicants, to a system which cares for students both on academic and vocational tracks by making more efforts to provide diverse alternatives for those who cannot go to college and to improve school facilities and teaching staff for non-academic courses.

Finally, the national government should share educational decision-making power with local government, companies, parents, schools and teachers. However, decentralization is not desirable on all occasions. Instead, it was strongly recommended that the state plays some roles in such areas as making macro-level decisions, making basic guidelines, setting national standards, and observing actions taken by lower-level decision makers. The importance of the central government is explained in three aspects.

To find an adequate screening system for future society, Chapter 4 featured overall trends of social changes and new aspects of future society, and examined changes already occurring in Korean society and

school education. Various socioeconomic transformations, such as fluctuations in population and changes in industrial structure, improvement of living standards, and changes in value system, had all influenced a recent reassessment of educational credentials, beginning to be found in corners of society. By the year 2010 this kind of change would be expected to extend to whole Korean society. It was also expected that the merit of college diploma be reevaluated, and competition for college admission be eased. Institutional changes have already begun at higher education level with the reform of college admission procedure and the efforts of junior colleges to differentiate their curriculum from that of four-year colleges. A survey also found that parents' demands for higher education as well as values they put on college diploma also tended to become diversified.

As we are all aware, many of educational problems in Korea have originated from uncritical zeal for college diploma and become complicated through interactions with other social factors. Due to the complexity of the problems, it is difficult to find where to start for solution. An examination of changes already occurring in Korean society and education, however, could offer a clue to resolution. We have already witnessed encouraging signs of change that could ease overheated competition for college admission and correct the social atmosphere that has emphasized higher education and overvalued school prestige.

Some signs of change have first occurred outside the education field due to a disproportion between supply and demand in labor force: a high employment rate among vocational high school graduates, in

contrast to a high unemployment rate and many cases of underemployment among college graduates, particularly those with humanities degrees; and a decrease in wage differences between high school and college graduates.

Some changes have been also found inside the education field. Such changes were found as positive responses to vocational education program for academic high school seniors who did not seek for college education; among non-college goers a preference for private institutes for technical education over those for college preparatory education; a quantitative explosion of private vocational/technical institutes like computer programming or design schools, and the systemization and diversification of their curricula; the higher pass score for vocational high schools than that for academic high schools as shown in the 1991 high school entrance examination conducted in Seoul. All of these recent changes inside and outside the education field have already promoted a variety of policy measures to reinforce vocational education, including specific financial investment plans of unprecedented scale. These trends were a favorable sign for the pursuit and achievement of policy goals.

This study took a view that, in order that education system properly works as a device for social selection, the reform efforts should be made on a more macro level, that is, restructuring education system, rather than on a micro level like changing minor aspects of college entrance examination system. As one example of many reformative attempts which should be made in overall education system, this study recommended strengthening vocational high schools for an initial step.

Chapter 5 specifically dealt with necessary measures critical to improve current vocational education at high school level. Last year the government announced a plan to reinforce vocational education by putting an equal emphasis on vocational and academic high schools through reforming the current college-oriented high school education and balancing the ratio of students in two fields 50 to 50 by 1996. Could this plan affect prevalent college preparatory education at high school level, help vocational education recover a status equal to that of academic education, and annihilate present blind zeal for college education for good? Merely making an equal ratio between two fields by expanding the capacity of vocational high schools is not enough to help secondary education perform its educational and social functions properly. Examining problems observed in present vocational high schools, Chapter 5 pointed out what should be considered and supplemented in high school education, besides balancing the ratio between two fields, for a successful transformation into well-balanced high school education, between academic and vocational education.

21. COMPREHENSIVE UNDERSTANDING AND FUTURE PROSPECT OF ADULT AND CONTINUING EDUCATION IN KOREA (I)

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Baik, Eun-soon
Choi, Don-min

For a comprehensive understanding of a rapid developments in adult and continuing education in Korea and its possible changes and progress

in future, there was a need to define and analyze extensively the evolution of adult and continuing education in Korea--from its dawn and emergence through growth, adjustment and prosperity to its current status. Based on the above assumption, this study aimed to perform the following tasks for two years of period (1992-1993).

First, this study attempted to analyze the chronology and categories of developmental phases to identify the characteristics of adult and continuing education of Korea and its patterns of changes (Tasks for the first year).

Secondly, to grasp the reality and characteristics of adult and continuing education of Korea, this study attempted to select a representative program in each category of adult and continuing education. An analysis of each program was conducted, focusing on the characteristics and educational needs of the program participants, the properties of the educational content, and the learning process and classroom instruction method (Tasks for the first and second years).

Thirdly, based on the projections for the 21st century, this study attempted to foresee changes in adult and continuing education; and to establish/recommend certain desirable directions of adult and continuing education for future as well as the detailed development plans and policy measures for each sub-category of adult and continuing education (Tasks for the second year).

Major research methods employed to complete the tasks of the first year were a review of related literature, a collection/analysis of data and statistics, brainstorming workshop for diverse opinions of

specialists, field trips to compile data, and interviews.

The developmental phases and characteristics of adult and continuing education of Korea, which was a major concern of the first-year research, were analyzed chronologically and categorically. A chronological analysis was based on the following four stages: the dawn of adult and continuing education since the Liberation through the late 1950s; the emergence of adult and continuing education in the 1960s; the growth of adult and continuing education in the 1970s; and prosperity of adult and continuing education in the 1980s to present. Characteristics and developments of adult and continuing education were examined at each stage.

A categorical analysis was based on the following seven fields: adult and continuing education to decrease illiteracy and to reinforce fundamental public education; adult and continuing education for community development; adult and continuing education for social enlightenment; adult and continuing education to train the work force; adult and continuing education to supplement formal education; adult and continuing education for leisure and culture; and adult and continuing education to promote citizenship.

Adult and continuing education was first conceived in educational drives in the 195's, primarily to launch a crusade against illiteracy. A social enlightenment education was provided to a partial degree in order to enlighten the public and promote a desirable citizenship, which became the first phase in the development of adult and continuing education in Korea.

Throughout the 1960s and the 1970s development-oriented government

policy emphasized community development and economic progress. Accordingly, adult and continuing education of Korea underwent the "period of growth" during which three categories of adult and continuing education for securing human resources, assisting community development and supplementing formal education became expanded and distributed. All categories of adult and continuing education during the two decades had common goals of "higher income," "better productivity," and "more advanced job skills." Even the branch of adult and continuing education to supplement formal education emphasized upon educational institutions to train the potential work force, such as industry-affiliated schools, private vocational institutes, and vocational semi-schools.

Following this period when adult and continuing education of Korea was concerned about community development and work force to accommodate the development-oriented socioeconomic policy of the government, adult and continuing education of Korea faced a period of transformation and drastic changes during the 1980s when the legal and institutional infrastructure became established. This marked the third phase of development, namely the "period of expansion and prosperity." Adult and continuing education in Korea could achieve substantial progress and growth, witnessing the emergence of various types of adult and continuing education, such as "adult and continuing education for leisure and culture," "adult and continuing education for promotion of citizenship," and "adult and continuing education for the work force" centered around in-service training programs by business firms and replenishment training programs by government offices.

A categorical analysis to define trends in developments and changes for each sub-category revealed that adult and continuing education to abolish illiteracy and to reinforce fundamental public education was given the first priority during the 1950s; had come to a pause between the 1960s and 1970s; and was reemerged as the "functional literacy movement," a new trend of adult and continuing education for those who lacked fundamental life skills and had relatively fewer educational opportunities.

Adult and continuing education for community development and social enlightenment was prominent throughout the three decades of the 1950s, 1960s, and 1970s, playing a key role in raising public awareness of community development, economic progress and belief in development alongside the modernization policy of the government. During the 1980s, however, this type of adult and continuing education had fallen into regression.

Adult and continuing education to train the work force at the beginning focused upon training programs for uncomplicated job skills. Lately, however, with an emphasis upon the idea of human resource development (HRD), this category of adult and continuing education had been developed into vocational education to prepare the skilled labor force as well as highly technical/professional education to improve the quality of specialized technicians and to encourage the invention of new technology. Such changes in and demands for adult and continuing education in terms of training the work force would be continued well into the future society in the 2000s.

Adult and continuing education to supplement formal education had

been developed into a combination with other types: with adult and continuing education for fundamental public education on one side and with an alternative pattern of formal education on the other side.

Adult and continuing education for leisure and culture had become the most conspicuous trend of non-formal education for women since the 1980s. The positive educational effects expected from this type of adult and continuing education were to meet the diverse cultural/ educational demands of various learning groups and to contribute to their self-development and improvement. On the other hand, it revealed certain side effects, such as education excessively commercialized and profit-oriented or inclined to urbanity and centered around the middle class.

Adult and continuing education to promote citizenship had been relatively low-keyed, or in most cases exercised "underground" without public notice because it had been inclined to condemnations of the government for the sake of criticism, or a consciousness-raising for radical ideology or against sexual discrimination. This type of adult and continuing education, however, should move toward a multi-dimensional education encompassing public awareness of various aspects. It should be expanded into an education to raise the public awareness in diverse fields of politics, economics, sociology, culture, arts, morality and ethics.

This first-year research on 'an analysis of developmental phases and characteristics of adult and continuing education of Korea' will be followed by the second-year research on 'comprehensive understanding and future prospect of adult and continuing education in Korea (II)'

to achieve the ultimate goal of initiating a future prospect of adult and continuing of education through an examination of its past and present.

22. A STUDY ON DEVELOPMENT OF KEDI GROUP INTELLIGENCE TEST (II)

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The purpose of this study was to develop in two years (1991-92) a most advanced intelligent test, compromising two conflicting theories in intelligence testing--traditional psychometric theory and newly emerging cognitive theory.

The tasks performed in the first year were as follows. First, the sub-areas of the KEDI Group Intelligence Test were organized as verbal, quantitative, and spatial abilities. Secondly, test items to measure IQ and identify weaknesses in cognitive process were developed. Thirdly, the validity of these items was verified. Two experiments to identify the difficulty level and error pattern of the items were carried out in June and October, 1992, with student subjects at primary, junior high, high school, and college levels.

This research carried out in the second year is on the standardization process of the test items developed in the first year. The detailed process of research in the second year is as follows.

To develop 8 types of KEDI Group Intelligence Test for elementary,

junior high, high school, and college students (A- and B-type of an equivalent form for each level), test items were composed for each sub-area systemized in the first year with the assistance of specialists.

The initial items were conducted to 2,400 students at primary, junior high, high school, and college levels. A statistical analysis of this preliminary test showed that item difficulty ranged between .30 and .70, and the researchers chose eventually the total of 115 items (verbal 40, quantitative 45, spatial 30) that showed high inter-item consistency.

To standardize the test, the finally selected test items were conducted to 17,778 students at 62 schools nationwide (5,937 in primary; 6,095, in junior high; and 5,746 in high schools), and 2,086 students at 18 colleges in Seoul and Kyongki Province. For consistent and precise test supervision, test administrators were trained before a nationwide testing, and conducted tests to primary, junior high, and high schools between June 26 and July 18, and to colleges between September 16 and 26 of 1992.

The test results were analyzed in three areas: basic statistics for producing norms, reliability and validity. The basic statistics for producing norms were based on the pass rate of the whole group for an item; analyses of regional and gender differences in the pass rate; and scaled score and IQ for each age group (primary, junior high and high schools vs. national criteria; city/country and male/female vs. national and categorical criteria). For reliability, standard error of measurement for test, inter-item consistency of all items, stability coefficients, split-half coefficients, and equivalent-form coefficients

were computed.

For validity, this study used the general intelligence test (Kim, Ho-kwon and Chung, Bum-mo, 1969) and the collective intelligence test (Lee, Sang-no) for primary level students; the A- and B-Type collective intelligence test (Hwang, Jung-kyu, 1991) for junior high and high school students; and the general intelligence test (Kim, Ho-kwon and Chung, Bum-mo, 1969) for college students. Correlation coefficients between different tests and between sub-tests within the KEDI Group Intelligence Test were produced.

This Test offers a scaled score (average 30 and standard deviation 8) in each of three areas--verbal, quantitative and spatial--and a percentile rank score to help follow student's relative score in each sub-test. IQ was computed with the mean set to 100 and standard deviation to 16 respectively. National norms for different age groups as well as city/country and male/female ones were produced.

The KEDI Group Intelligence Test can provide not only IQ but information about cognitive process, such as (1) types of questions students find difficult to solve, and (2) an analysis of students' error patterns.

23. A STUDY ON DEVELOPMENT OF ENRICHMENT PROGRAM FOR GIFTED CHILDREN IN PRIMARY SCHOOLS

Cho, Seok-hee
Kim, Myung-sook
Park, Sung-hee

In Korea, education for the gifted was initiated to achieve both

personal and national goals: to develop potentials of individuals to the highest degree, and to improve the adaptability of the nation to a highly technology-oriented global society. Since the initial foundation of a science high school in 1983, education for the gifted has focused on mainly high school students. Only recently, the necessity of education for the gifted from as early as primary schools has been brought to attention. Among many components of gifted education, teaching/learning programs is one of the essential prerequisite to the execution of education for the gifted. Accordingly, the main purpose of this study was to formulate teaching/learning programs for that age group.

The following program was developed to provide the gifted with wider and intensive learning experiences on the basis of regular curriculum instead of regular curriculum in a shorter time-period. This program adopted the process-product model for teaching-learning, which emphasizes students' acquisition of knowledge related to a given theme, application of such knowledge to problem-solving, and enhancement of advanced critical thinking skill. Renzulli's Triad Enrichment Model was adopted and revised to meet particular needs of Korean education. As for Renzulli's Triad Enrichment Model, the first enrichment stage is to explore various themes and scopes not covered by regular curriculum. The second stage is to develop cognitive and research skills, such as learning, research, utilization of references, and communication skills. The third stage is to utilize professional research methods and examine specific issues in everyday life.

This program aimed at developing high-level thinking skills in

each area. Students first learned major and basic concepts and functions of each field, and applied them to inquiry tasks. A lecture was avoided. Instead, student-centered teaching/learning methods were used, such as survey, discussion, inquiry, artifact production, field trip, and watching visual documents. Teacher's role was to assist and guide a small class of the gifted to carry out a session on their own.

To provide practical help for the gifted at primary level, two different sets of teaching-learning materials were developed for the teacher and students--one for 3rd and 4th graders and the other for 5th and 6th graders. Based on an interdisciplinary approach, this program aimed to help students develop what they learned under the current curriculum. The results were also published in separate volumes for teachers' use.

This program selected and incorporated appropriate themes that could elaborate the 5th Primary School Curriculum. For 3rd and 4th grades, 'World of tales,' 'World of geometry,' 'Where do people live?' and 'Inquiry into magnet' were selected. For 5th and 6th grades, 'Newswriting,' 'World of probability,' 'Korean customs,' and 'Clean water' were selected. 'Composing children's song' and 'Appreciation of fine arts' were also selected to be used for any grade.

Except 'World of probability,' every program on each theme generally consists of teaching/learning activities related to three different learning stages: 1st and 2nd lessons for Introductory stage; 3rd through 9th for Intermediate stage; and 10th through 12th for Concluding stage. Initially, 'World of geometry' and 'World of probability' were also devised on the basis of the Triad Enrichment

Model. However, in this field, the hierarchy among the content of learning was obvious. Furthermore, enrichment learning experiences were specified into inquiry and learning content. A guided discovery-learning model was adopted to allow students to explore, acquire, master and apply problem-solving skills in each thematic area gradually. Teacher's manual introduces its outline and study objective/content prior to teaching/learning, and student's learning kit was provided with sufficient blank spaces where they can write down and rearrange their thoughts.

To identify any problems in the program and to test the feasibility of implementing it in individual schools, the program was tried out at three primary schools. Prior to an application, the teachers of the schools were instructed briefly in various aspects of gifted education, program content, objectives of and teaching methods for the program. Following an observation of the classes where the program was put to use, an overall evaluation of the program--philosophy, organization, operation and effect--was executed, using a post-program evaluation form. In addition, those teachers who were actually testing out the program, the research team and authors gathered together to discuss the problems and possible modification ideas as identified during an implementation, and the content of these consultations were reflected in revising the program.

In general, teachers, students and parents evaluated the program as extremely satisfactory to students' academic demands; systematic, interdisciplinary organization of content; generation of students' motivation; and interactions between teacher/student or

student/student. Particularly, students responded that this program appeared more riveting than textbooks, to generate interest in a given theme, to allow independent learning, and to promote skills of creative, logical thinking and inquiry.

The teachers pointed out that the program should have taken individual differences more into consideration. In particular, the program failed to suggest more enrichment or follow-up activities for a more advanced group among the gifted. The teachers indicated that they were too much concerned about completing the program implementation, and therefore, failed to properly evaluate students afterward. The revised program reflected the above concerns as well as the results of classroom observations and consultations with the teachers. The Ministry of Education distributed among primary schools the final version of the program to encourage a special enrichment program for the gifted.

The teachers also pointed out that a short-term training based on lectures was insufficient and an execution of the program after school was a burden for both teachers and students. For a more effective implementation of the program, an in-service training by the authors of the program and specialists in the gifted education was recommended. In addition, the program was recommended to be implemented during regular school hours, instead of after school.

24. A STUDY ON DEVELOPMENT OF EDUCATIONAL PROGRAMS FOR STUDENTS WITH BEHAVIORAL DISABILITIES (I)

Lee, Na-mi
Hwang, Hae-nim

Lately, perverted and deviant behaviors as well as crimes among adolescents have been gradually increased, which raises the necessity of understanding and preventing such problems within the school environment during the periods of primary and secondary education. Unfortunately, however, very few programs are available for those students with behavioral/emotional disabilities. This study, therefore, aimed to develop educational programs for students with behavioral disabilities that could meet such needs.

The objectives of this study at the first-year (1992) were as follows.

- To determine an appropriate theoretical model and directions of educational programs for this study on the basis of analyzing characteristics of students with behavioral disabilities and various theoretical models
- To deduce the content of education that could supplement deficiencies in the students with behavioral disabilities
- To develop on the basis of theoretical explorations educational programs in four areas, such as maladjusted behavior correction, sociability training, language lesson and study skills

In the first year of study the related literature on

behavioral/emotional disabilities were reviewed; the concept of behavioral disability was defined and characteristics of the students with behavioral disabilities were investigated on the basis of consultations between KEDI researchers and outside specialists; and for this study an applicable model and desirable directions of program development were determined. In addition, interviews were conducted with teachers of special classes, vice principals and principals to diagnose the problems of the students with behavioral/emotional disabilities and to determine what should be taught. After determining the directions of program development through consultations, three outside specialists were commissioned to develop programs of three fields--maladjusted behavior correction, sociability training and study skills; programs for the language lesson field were developed by KEDI researchers. Whoever developed the programs, these were referred to teachers of special classes for supplementary consultation.

The content of education programs in four different fields for students with behavioral disabilities are as follows.

1. Behavior Correction Program

Maladjustment is defined as a behavioral phenomenon that has become instituted and occurs automatically regardless of student's will. This program aimed at correcting 25 maladjusted behaviors. The correction procedure was (1) to define target behavior; (2) to describe why target behavior should be corrected; (3) to determine and diagram essentials; (4) to determine behavior correction objectives; (5) to explain how to implement the program; and (6) to diagram behavioral

changes occurring during the program implementation.

2. Social Skill Training Program

Social skill training is a discipline of interpersonal skills, which is possible only with the combination of voluntary efforts and will. Social skill training program consisted of 60 features and the procedure based on simulation learning and cognitive behavior correction methods was (1) the trainer initiated an act; (2) the student faithfully imitated the act while repeating the trainer's words, and then, the trainer gradually reduced his/her verbal expressions; and (3) the student was asked to speak out one's thought.

3. Language Lesson Program

Language lesson program consisted of three stages. Stage one included the process of acquiring kindergarten-level reading and writing skills. Stage two introduced the learning ideas of the first and second graders, and included speaking, listening, reading and writing activities to make learning more interesting and easier. Stage three included various reading and writing materials to help students comprehend the meaning.

4. Study Skill Program

Study skill program used Feuerstein's advancement program using tools (1980) and adopted merits of the stereotypical and classic models of conceptual learning. Each of the 17 programs included general objectives, instruction objectives, pre-test of student's capabilities,

extent of instruction, and a checklist for responses to subsequent evaluation activities that would show student's success or failure in study skill acquisitions.

25. A STUDY ON EFFICIENT VOCATIONAL AND TECHNICAL EDUCATION IN HIGH SCHOOL

Ihm, Coon-sun
Hyun, ju
Park, Hyo-chung
Lee, Jae-boon

This study was undertaken to formulate various policy measures to improve the efficiency of the vocational/technical education system in Korean high schools. For this end, the study first re-examined the objectives and functions of vocational/technical education in Korean high schools. The researchers analyzed the state of the national system for vocational/technical education at the secondary level, and administered a survey of school officials and students engaged in various types of vocational programs.

As the result of the survey and the review of related literature, problems of vocational/technical education in Korean high schools were assessed as follows.

Basically high school education in Korea was found to be excessively concerned with humanities education and vocational programs. Particularly, technical high schools, which occupy a large

share of vocational high schools, did not have adequate facilities and capacities to admit all of applicants. Obviously, academic high schools failed to provide proper vocational preparation for those students who did not advance to colleges.

Also witnessed were the rigidity and inflexibility of the secondary school system which limited efficiency of vocational programs. Regardless of their fields, students were uniformly required to complete three years of high school, and the system allowed few transfer opportunities for students in either of the two streams--academic and vocational--posing another obstacle to the efficient management of a national system of vocational/technical education at the secondary school level.

The content and conditions of education at vocational high schools were also shown to be highly deficient, although they played the central role in providing vocational/technical education at high school level. The efficiency of the curriculum management was also questionable. The curriculum content, the methods in use and the rigid classification and differentiation of major fields of study, as well as adverse facilities for experiment and outdated equipments, all posed problems in quality operation of vocational school programs. In addition, a considerable number of vocational high school graduates found employment in fields irrelevant to their majors, and accordingly, a quitting rate was rapidly increasing.

Based on the above assessments of problems, the following improvement measures were recommended.

The present high school system based on a rigid division into two

tracks--namely, academic and vocational--lacks flexibility and restricts students' career choices according to their aptitudes and capacities. It also restricts transferring opportunities between the two tracks. Alternatively, a 'comprehensive' high school system is recommended to allow students relative freedom to select or change their majors during the three years of attendance.

For better coordination of administrative and supporting activities for vocational/technical education, Ministry of Education, Ministry of Labor, and business firms should reinforce mutual interactions and organic cooperations. Particularly, joint training facilities for vocational high schools should be expanded; and companies should establish and operate short- and mid-term consignment programs to extend training opportunities to those students in academic and vocational high schools.

In the long run, loosening the present rigid classification of majors or departments in vocational high schools could be considered. Instead of concentrating on a particular field, schools could offer diverse courses in preparation for larger clusters of similar occupations, and allow students an opportunity to test their aptitudes prior to committing themselves to one vocation. This measure, however, could be considered for a nationwide implementation only after pilot implementations at experimental 'comprehensive high schools' or exhibition schools proved its effectiveness. Companies employing graduates should also provide more opportunities of on-the-job training for vocational high school students. In addition, necessary experiment/training facilities should be equipped so that vocational

high schools can meet the newly upgraded standards.

To train qualified teachers for new courses in vocational high schools or for vocational courses in academic high schools, colleges of education should expand vocational curricula for teachers, and establish vocational/technical education departments to offer more courses in teacher training programs.

To relocate teachers of academic high schools that were converted into vocational ones, teachers in non-vocational disciplines should be provided with reeducation programs. Projected teacher accreditation system should also be closely examined to adjust to changing demands and supplies of vocational teachers.

An organization in exclusive charge of vocational/technical education should be also established. An independent bureau within the Ministry of Education could enhance systematic planning and management of the vocational education system at the national level.

Finally, an overall restructuring of the educational financing system is needed to make the vocational/technical education system more efficient. To secure massive amount of funds needed to expand vocational/technical education while the financial support from the government is limited, the public sector of business firms should be induced to invest and the private sectors should be induced to invest and take a greater share of the burden of training at the secondary school level. At the same time, tax deductions and other incentives at the national policy level should be implemented to induce educational investments by private enterprises.

26. DEVELOPMENT OF COGNITIVE TEACHING/LEARNING MATERIALS FOR KINDERGARTENERS

Kim, Seong-bong
Na, Jung
Chang, Myung-lim

This two-year (1991-1992) study aimed to meet the needs of kindergarten teachers for cognitive teaching/learning materials. As the first step to develop the materials for kindergarten children, the first-year study was devoted mainly to a literature review, field trips, and consultation meetings with specialists concerned.

The literature review focused upon Piaget's cognitive development theory and other leading theories of child learning process. The review indicated that (1) changes and progress in cognitive development occurred through interactions between the subject and his/her environment; (2) the development of a logico-mathematical thinking ability was at the core of cognitive development; and (3) the concepts of classification, gradation and number lay at the foundation for logico-mathematical thinking.

Secondly, interviews with and surveys of kindergarten teachers revealed that more materials were needed to be developed to stimulate children's cognitive development. Particularly, kindergarten education specialists emphasized the necessity of developing cognitive materials supported by more systematic research.

Based on the above observations, the researchers developed 33 kinds of tentative teaching/learning materials, which were divided into 5 different types: Basic Tool Kit, Boards and Cards, Manipulative

Tools, and Games. These were divided into two levels according to their content and activities. Two types of teacher's manual and guidebook were also developed.

A manufacturing agent produced the above materials, which were later implemented to three kindergartens in Seoul for a validity test. Observation, VCR recording, and interview methods were used to examine preschoolers' degree of interest and achievement of the applied materials, the adequacy of the materials to children's developmental levels, and their usefulness as teaching/learning materials.

The test results showed that preschoolers expressed interest and curiosity in these materials, and these materials were found highly valuable as teaching/learning materials. Particularly, preschoolers expressed most interest in Basic Tool Kit (chips of five different colors and shapes, and sticks of five different colors and sizes), Manipulative Tools and Games, and responded positively to materials that contained Korean traditional patterns.

Achievement levels varied for each individual child and institute; however, all in all, Level-I materials were evaluated as adequate for 4-year olds, and Level-II materials for 5-year olds. In addition, some revisions were made later to correct and enhance the materials. Finally, two different levels of 26 teaching/ learning materials in 5 different types, Activity Cards, Teacher's Manual and Guide were completed.

These cognitive development materials will be available from 1993. They can be used as teaching/learning materials for cognitive development at preschool and kindergartens, and as toys at home.

27. DEVELOPMENT OF LEARNING MATERIALS AND TEACHER'S GUIDE FOR ENVIRONMENTAL EDUCATION IN PRIMARY SCHOOL (I)

Choi, Don-hyung
Nam, Sang-joon
Kim, Young-ran
Kim, Do-hee
Lee, Jai-young

This is a summary of the first part of a project entitled "A study on development of learning materials and teacher's guide for environmental education in primary schools.

Chapter I, "Research Outline," contained a review of previous research and a statement on the necessity of environmental education materials for primary schools, which should be totally different from the traditional ones to meet demands of the newly reinforced environmental education in the 6th national curriculum revision. Research objectives, content, methods, and findings were described in details.

Chapter II, "Research Execution," recounted as follows theoretical explorations in environmental education programs, and accordingly, the structure and content of developed programs.

First, the central concerns of this research were the reality and problems of existing environmental education programs in primary schools, and a desirable format of programs to solve such problems and substantiate environmental education in schools. Consequently, a color module type was discovered most appropriate. For current materials equipped at primary schools need to be improved, environmental education within a natural setting should be practiced at schools in

close relationship with real life, and environmental education should be centered around problem-solving, using a multidisciplinary approach.

Secondly, the to-be-developed environmental education materials for primary school were named "Exploration of Environment Series," which was broken down into three levels. "Rewarding Explorations of Environment" was developed as 6 modules for 5th and 6th grades in 1992. "Interesting Explorations of Environment" was developed as 5 modules for 3th and 4th grades in 1992. "Merry Explorations of Environment" is to be developed as 4 modules for 1st and 2nd grades in 1993. Teacher's guide for all grades is also expected to be developed in 1993 to help teachers understand environmental education better and utilize the series.

Thirdly, once the development guidelines for the series decided, a structure of the module model was determined after discussions on developed samples. A module for each theme was structured in the following three stages: consciousness-raising for environmental problems; information "about" environment, reality of environmental problems, and teaching/learning activities; and conclusion, development, evaluation, and participation. This structure, however, can be applied with flexibility according to characteristics of each theme.

Fourthly, 9 areas of environment education were determined after a review of major previous studies: natural environment, artificial environment, population, industrialization/urbanization, resources (energy included), environmental pollution, environmental protection, environment policy, and environmental sanitation. The title and theme

of each module were determined accordingly to be relevant to these areas.

Fifthly, once title and theme settled, an activity theme for each module was established after the researchers reviewed abundant data, both domestic and overseas. With the objective and process of each activity theme described, the structure and content of modules, which comprise each stage of the "Exploration of Environment Series," were also established.

Last, KEDI researchers and outside specialists, mainly practicing teachers, wrote reports on these established modules. The drafts were revised, supplemented and substituted through continuous reviews. Commissioned to outside specialists, photos and illustrations to accompany them were reviewed and revised alongside with the manuscripts. The final drafts of "Rewarding Explorations of Environment" and "Interesting Explorations of Environment" were consigned to an outside printer and published in late 1992.

"Appendix" included modules from each of "Rewarding Explorations of Environment" and "Interesting Explorations of Environment" to exemplify the structure and content of the whole series.

C. EDUCATIONAL POLICY RESEARCH CENTER

28. SCHOOL EDUCATION DOMINATED BY COLLEGE ENTRANCE EXAMINATION: REALITY AND COUNTERACTIONS (III)

Kang, Moo-sub
Im, Youn-kee
Kim, Heung-ju
Kim, Jae-woon
Shin, Ik-hyun

This is the final report on the project entitled "School Education Dominated by College Entrance Examination: Reality and Counteractions" that has been carried out for the past three years (1990-92) as an attempt of exploring comprehensive solutions to this crucial problem.

During the given period, this project has dealt with the following major issues: formation of an appropriate perspective to analyze school education dominated with preparations for college entrance examination; analysis of conditions and causes; comprehension of actual operations; analysis of private tutoring practices; analysis of subsequent career patterns of high school graduates who do not go into higher education; analysis of merits and demerits of current educational policies for solution; and analysis of government policies on college admission of several advanced countries. Subsequent findings have been already published as research reports, and some of their titles are "School Education Dominated by College Entrance Examination: Reality and Counteractions" I & II (1990, 1991), and "A Study on Private Tutoring in Korea" (1991).

This final report focused upon fundamental guidelines and approaches in exploring solutions for school education dominated with preparations for college entrance examination, and the results of

examinations and suggestions in the following four areas: college entrance examination, higher education, high school education, and non-educational systems. Major proposals of solution suggested in this report can be summarized as follows.

First, the existing college entrance examination system, which originally aimed at selecting those qualified high school graduates to benefit from college education, has failed to accomplish both the initial selective function and the ultimate goal of leading secondary education to a desirable direction.

Consequently, a new long-term systematic device was recommended. This scheme would adjust the demand for higher education at high school level through determining student's eligibility for college education, and select the qualified among the applicants to colleges. In other words, this system was suggested to operate at two different levels. On one hand, the emphasis was on refining the scholastic aptitude, which is to be implemented in 1994, as a qualification test, and supplementing high school achievement records to make it a significant screening standard for college admission. On the other hand, the focus was on the rationalization of college admission procedure through a collective administration of independent entrance examinations of individual schools, and on the selection of eligible students among applicants.

Secondly, an overall understanding was reached that the whole issue of school education dominated with preparations for college entrance examination derived from excessive competition due to the unbalance between the demand for and opportunities of college

education; therefore, they recommended measures to extend opportunities for and to substantiate higher education. The researchers examined and recommended to substantiate and expand higher education through diversifying the higher education system and encouraging each institute to have expertise; to activate a utilization of the existing educational facilities through introducing multi-term and night-class strategies; to expand higher education opportunities through improving a quota system; and to allow partial flexibility in the admission system to relieve competition.

Thirdly, actual educational scenes at individual high schools were observed for analyzing characteristics of school education dominated with preparations for college entrance examination and to explore their possible resolutions, for any solution should begin with a reform of current high school education. To recover a quality education and resolve problems of school education dominated with preparations for college entrance examination at high school level, the following measures were recommended: to diversify institutional categories--academic, vocational, special, civic, and specified high schools--to allow various career opportunities; to initiate career counseling system; to establish vocational training system by encouraging vocational education; to rationalize an administration of high school curriculum; to utilize creative teaching/learning methods; and to reinforce educational evaluation and superintendent's leadership.

Fourthly, the problems of school education dominated with preparations for college entrance examination was due to circumstantial/motivation causes. Hence, for an adequate control and

transformation of such causes, the following measures were recommended: to initiate a public awareness movement to relieve competition for college admission and absolute conviction in higher education; to supplement/expand social/vocational training functions of non-formal educational institutes to make individual academic achievement practical for career; to secure sufficient financial investments to meet quantitative/qualitative demands for education; to emphasize educational functions of mass media; to reform employment and wage systems of business firms that are based on employee's educational level, and therefore, influence blind determination for maximum education.

For an emphatic endorsement of the above policy measures, the establishment of a standing organization for policy evaluation was strongly urged, which would include various government departments related to education and public association. This organization was expected to take a broad look at the problems of school education dominated with preparations for college entrance examination, and to actively promote the establishment, revision, and implementation of new strategies. Besides the foundation and operation of an all-inclusive evaluation organization, the concerned parties were urged to pay attention to the following issues. The government administrators should examine with discretion various policy measures and have determination to implement them. Schools should establish and sustain professionalism to secure quality education. Parents should understand their children as independent individuals and encourage them to grow up as decent human beings. The government should make efforts to increase

educational investments to solve existing problems. The media should recognize their appropriate function to educate the public and promote desirable public opinion. Business firms should make efforts to utilize human resources not on the basis of educational levels but of capacities.

29. A STUDY ON MEASURES TO ACTIVATE VOCATIONAL EDUCATION SYSTEM AT COLLEGE LEVEL

Choi, Young-pyo
Park, Young-sook
Hong, Young-ran

This study focused upon the exploration of practical measures on the following issues: how to organize the vocational education system at college level to build up sufficient technological manpower as required in industrial society; how to develop the vocational training system of junior and industrial colleges; and how to respond to demands for a new vocational education system.

Based on the above goals, three questions were raised in this study: how to organize college vocational education system; how to revise/develop the system and institution of college vocational education; and to make what propositions to activate these systems.

First of all, the backgrounds of college vocational education were reviewed and their status and problems were analyzed. The analysis revealed that the current college vocational education was both inactive and unable to respond to industrial needs. Government support

as well as business participation was also found insufficient.

A following analysis of demands for the development of college vocational education indicated that the present education system of junior and industrial colleges should be supplemented/revised. A new vocational training institution should be introduced just as well. Junior and industrial colleges needed to establish proper educational goals, to operate a curriculum based on job analysis, to secure skilled instructors, and to reinforce collaboration between industries and institutes.

Based on the analyses, this study suggested practical measures to activate college vocational education as follows: to establish an educational system that could improve student's marketable skills and respond to needs of industrial society; to strongly emphasize government responsibility and encourage a constructive participation of industries; and to make vocational training more attractive to students and promote public awareness. A brief outline of suggested measures in these directions were as follows.

1) Establishing Vocational Education at College Level on the Basis of the School Ladder System

a. The education systems of junior and industrial colleges should be revised/refined so that they could perform properly the function of vocational skill training:
   - to diversify junior colleges into vocational and inclusive types (vocational plus academic divisions) and

- to reinforce the function of professional vocational skill training and extend continuing education opportunities in regard to industrial colleges.

b. A new vocational training institution should be introduced -- centered around the tentatively named "Vocational College":
   - to establish the vocational college as a special institute for continuing education that would bring up mid- or advanced-level technicians,
   - to allow flexibility in the foundation requirements, quota determination, and administration of the vocational college, and to revise related educational laws and regulations, and
   - to grant a preferential treatment for the applicants with vocational aptitude and to provide free education.

c. Technical specialist degrees should be conferred:
   - to confer special degrees separate from academic degrees, such as Associate, Bachelor, Master, or Doctorate of various technical fields.

2) Reinforcing Vocational Training Function of Junior and Industrial Colleges

a. Junior colleges should establish different majors with an emphasis on technical skills to respond to the needs of industrial society.

b. Industrial colleges should rename departments to be differentiated from general four-year colleges, such as department

of electric mechanism technology or construction mechanism technology.

c. The curriculum should be revised every five years on the basis of the job analysis of industry. The humanities curriculum should be also edited to encourage work ethics.

d. A new student screening system, focusing upon their vocational aptitudes, should be established:

- To extend up to 50% the rate of students admitted through a special screening without a test, who meet any of the following qualifications: previous employment in the field for one or more years; acquisition of a vocational certificate or diploma of a vocational high school; and completion of vocational courses at an academic high school or at a college, and
- to allow the college an autonomous admission administration in regard to the period and screening standards, except fundamental guidelines.

3) Recruiting Qualified Instructors

a. An instructor should be required the minimum of three years of vocational experience in the field.

b. The appointed faculty should be required six months of regular in-service vocational training, which should be specified as a term of reappointment.

c. The qualification requirement should be lowered for those candidates with previous vocational experiences so that they could be

appointed.

4) Establishing Support System for Vocational Education

a. The cooperations between industries and educational institutes should be mandated, and the government should devise support and encouragement strategies when industrial firms accept the trained manpower.

b. The government should take a greater responsibility in encouraging vocational education, and initiate/support the tentatively named 'Special Fund to Support Industrial/Technical Education.'

c. The Bureau of Vocational Education should be initiated and a specialized research center should be founded.

d. Vocational training institutes should be evaluated regularly for selective provisions on the basis of their improvement.

30. A STUDY ON INNOVATION POLICY SCHEMES TO IMPROVE MANAGEMENT OF SMALL RURAL PRIMARY SCHOOLS

Kim, Yong-woo
Choi, Joon-yul
Cho, Julle

The persistent influx of the agricultural and fishery population to towns and cities, which is a result of urbanization and industrialization, has caused a drastic reduction in the number and

size of schools in rural areas. This trend is most noticeable at a primary level. Many schools have been closed down, diminished, or obliged to multiple class. The management issue of the small schools involves educational problems of how to deal with the low level of academic, social and cultural development among students as well as socioeconomic problems of how to cope with higher costs and lower efficiency in educational investment.

Another significant issue in the management of small rural primary schools is that such schools are expected to perform more diverse roles and functions within the local community than urban schools.

To analyze the above problems and to search for directions and measures to improve the management of small rural primary schools, the researchers conducted a literature review, policy debates, questionnaire survey, interviews, and consultations with specialists. Based on the results of the study, the followings were suggested.

1. National curriculum revisions should be taken into consideration. The operation of multiple and/or too small class settings is one of the major problems in almost every rural primary school. This means more flexibility should be allowed in teaching methods and a content presentation format, and an open education should be introduced to provide student's individual learning, while satisfying the core curriculum of a given grade and course. These considerations should be also reflected in textbooks and teacher's guides.

2. At present individual teachers and boards of education are in charge of developing support materials for multiple class teaching, although an identical curriculum is required nationwide. A city/municipal board of education should eventually have complete autonomy in curriculum operation when the 6th Curriculum Revision takes effect in 1995; however, until an autonomous administration is in smooths, full operation, the government should take a responsibility for the development and dissemination of support materials for multiple class. In the mean time, the government should carefully select appropriate materials among already developed tools and commercial publications, and offer them to small rural schools.

3. Student-related institutions, such as a training center, should develop an educational/curricular program to offer students an opportunity to experience what can be acquired at normal-size classes and schools. A "regular curriculum camp" program should be initiated so that students from various small schools in neighboring areas gather together to experience excellent educational facilities and experiments, extracurricular activities, and social interactions.

4. The curriculum of each course and grade in small schools should be administered with flexibility. Extracurricular activities for multiple class students, introduction of open education, and limited application of a non-graded school system can be considered.

5. Teacher's colleges in a province where small schools occupy a

majority should offer courses for the administration of too small or multiple class as well as the management of small schools. In addition, student teachers should be assigned to these schools to acquire practical knowledge.

6. To suit local needs and conditions, each province should be allowed to make flexible decisions on the location scale and bonus score systems for those teachers serving at small schools in remote areas, which often serves as a financial incentive. A special stipend for developing teaching materials to be used in multiple class should be initiated. Existing allowances should be increased; however, proportional allotment upon the base pay, rather than total salary, will attract experienced teachers more effectively.

7. Teacher training on the administration of multiple classes and small schools should be carried out systematically within each province. Ideally, supervision should be request-based and more responsive to the needs of individual schools. Each province, therefore, should train supervisors specializing in the management of small classes and schools.

8. To reduce workload of teachers in small schools and allow them to concentrate on teaching, bureaucracy in processing official documents should be simplified and systemized. Careful consideration should be given to the appointment of clerical and assistant staff in every small school.

9. Closed-down school facilities may be utilized to accommodate regional cultural activities. School bus service should be provided for commuting students who are transferred from closed-down schools. School buses should have a uniform color nationwide to raise public awareness. To guarantee an effective, systematic operation of broken facilities and equipments of small schools, a mobile repair team should be organized and operated by each county or province board of education.

10. An absolute evaluation method should be applied to teachers of branch schools. This may balance out their disadvantage in evaluation to some extent.

11. Schools with 90 or less students are appropriate for a consolidation or close-down. A school which falls in this category may be merged with another school if they are located within 8 kilometers of distance, and can be reached in 40 minutes one way by target students. Schools should be maintained and be downsized again if the number of students falls under 60. Even in the latter case, it is recommended to maintain the names of 'school' and 'principal' to prevent any discouragement among students and local residents. If the number of students falls under 10, the school should be considered for a close-down. The organization of multiple classes may be attempted when the number of students in a class is 8 or less and that of two classes is 15 or less. Only two grades in one classroom should be allowed, and three or more grades in one classroom should be avoided by admitting first graders every other year. In this case, down to 5-

year-old children can be admitted as first graders. In transferring to a regular school, they should be admitted to a grade equivalent to their age levels. Prior to an establishment of an early admission, however, a revision/ amendment of Articles 96 and 98 or an initiation of a separate Presidential decree is required.

31. A STUDY ON IMPROVEMENT OF FINANCE SYSTEM FOR LOCAL EDUCATION

Kong, Eun-bae
Choi, Sang-keun
Chun, Se-young

Based on the review on the validity of the structure and administration of the present finance system of local education, this study was to seek for financial policy measures to develop self-governing system of local education; and to provide ground data to facilitate future financial policies.

To achieve the above goals, a comprehensive review was conducted on the relationship between the self-government and finance system of local education in an attempt to form a conceptual framework in analyzing its current structure and operations. A self-governing local education in this study referred to a system in which decision-making authority is evenly divided between the central and local governments and between public and educational administrations. Local educational finance referred to a system in which the principle of self-government

becomes realized through initiating, distributing and managing its own finance.

A comprehensive review was also made on the historical development in the self-government and finance system of local education since the Independence in 1945. The authority in educational administration was maintained by the Ministry of Education. At the same time, the separation of educational administration from overall public administration was reinforced. In regard to local educational finance, an education portion in the total local government budget has been reduced gradually, and financing local education became more dependent on subsidies from the national government subsidies rather than local governments. An overall democratization of society since the 1980s, however, encouraged argumentation in favor of reviving a self-governing system of local education, which resulted in the launch of a national regulation of self-governing local education in 1991. The nature, structure and operation of the current system, however, need readjustments.

In addition, local educational finance systems in the U.S. and Japan were reviewed. Local governments of the two countries provided more educational expenses than the central government. This burden was willingly taken for two reasons. First, a direct participation of the public in local education is institutionalized. Secondly, a local government encourages the coalition of and close interactions between educational and public administrations, while insuring independence and self-governance of both parties.

A literature review was also conducted on the existing financial

system of local education in Korea, especially the local education budget ('special budget') in the aspects of provision, distribution and management. Major findings were as follows.

As for financial provisions, more than 85% of the fund depended upon central government subsidies. The introduction of a local transfer grant (Educational Tax) did not increase educational finance as drastically as expected. Various revenue resources, such as local government subsidy, national government subsidy, or special account for the improvement of educational environment, were almost undistinguishable from one another in terms of their financial capacities. For the taxation authority of a local government was insecure and legal devices to support educational expenses were insufficient.

As for financial distribution, expenses to maintain accommodation facilities and subsidies to make up financial deficit of private schools were all included in the lump-sum grant, and that created a disproportionate distribution of fund among different regions. Some of distribution standards, such as supplementary index based on the weighted number of students at different educational levels and location index for different cities and towns, turned out to lack rational grounds. A lump-sum grant also failed to reflect particular needs of each region and school.

As for financial management, the annual budget of each year tended to follow blindly that of the previous year. An establishment of local educational budget often took too long, which hindered a timely or flexible execution. Budget committees often overlapped, creating lack

of efficiency and professionalism.

To explore possible measures to improve the finance system, a review was extended to the principle of local education financing, characteristics in the formation and changes of the current system, suggestions derived from a study of foreign systems, and problems in their operations. Based on the survey results on local educational finance, the critical issues in three aspects of provision, distribution and management were examined as follows.

First, financial provision was discussed in the aspects of the central government, the local government, and special account for local education. Above anything else, to increase educational investments the concessionary and transfer grants, which was provided by the central government and was the primary resource of local educational finance, should be operated with complete independence, not just a superficial separation. Particularly, a transfer grant should become a constant financial resource for local governments because it is expected to increase rapidly with growing internal revenue. Supplemented by local education grant, a transfer grant will eventually contribute to the financial independence of local governments.

As for local government responsibilities, how to increase transfer grants from the general account of a local government is a principal issue. For instance, a transfer grant to support salaries of secondary school teachers and subsidies for non-formal education expenses are a legitimate cause, and therefore, should be increased. Transfer grants from tobacco tax should be expanded as well. In addition, to share expenses for school facilities with schools, the local government

should consider allowing the general account to provide a piece of land for a school site at free of charge or with minimal costs.

As for individual school revenue, students' tuition and fees comprise the largest portion. To meet financial necessities, schools may increase tuition and fees in principle; however, because of government regulations for tuition stabilization and fair transactions, it is not permissible. Hence, other possible solutions, such as increasing surcharges, estate income, special levy, shared expense, and donation, should be explored.

Secondly, the distribution issue is approached in two directions: the national and regional governments. As for a distribution system of the national government, a crucial issue is how to allocate concessionary and transfer grants. Here the current distribution structure based on a lump-sum needs to be revised. This approach should be limited to routine expenses, while special operation funds, such as private school subsidies, should be excluded to reflect regional differences. In addition, the cost differential index based on the weighted number of students should be elaborated through in-depth studies. At a city or provincial government level, a rigid uniform distribution program based on the unit cost of school and class should be revised to meet diverse demands of each region.

Thirdly, in finance management, the unnecessarily complicated procedure between the board of education and the local assembly should be simplified throughout the whole process of drawing up, executing, and balancing educational budget. On the other hand, designating the board of education as a final authority in conclusive decision-makings

on educational budget should be reconsidered. Direct forwarding of a board decision to a local assembly chamber, omitting an education sub-committee, may encourage efficient financial management. In addition, a participatory control over financial operations by local residents should be institutionalized to enhance the accountability of the board of education.

Based on the above findings, the following conclusions were drawn to improve local educational finance. First, continuing efforts to secure sufficient revenue are necessary to guarantee and cultivate the self-governing system for local education. Secondly, the central and local governments should support further a special account for local education to acquire self-governing authority. Finally, in-depth analytical research on educational financing should be carried out.

32. EDUCATION AS A CORE INDUSTRY OF THE NATION: A RATIONALE FOR EXPANDING EDUCATIONAL INVESTMENT

Han, You-kyung

1. SUMMARY

1-A. Research Outline

This study aimed to explicate rational grounds for expanding investments in education, a core industry of the nation, and to come up with a rationale for expanding educational investments. To achieve the above goals, this study reviewed a theoretical background for education and national development, analyzed the status of educational

investments in Korea, diagnosed educational investment policy of major foreign countries, and devised a rationale for expanding the scale of educational investments.

A review of the previous literature was a major research method. A survey of civil officers, local assemblymen, teachers and parents in relation to an adequate investment scale and its possible expansion were also conducted and analyzed.

1-B. Education and National Development

An analysis of the developmental education theory that insisted upon the significance of education in national growth revealed that education makes an outstanding contribution to progress in all aspects: politics, economy, society and culture. The developmental education theories of Hanson and Brembeck, Adams and Fagerlind, and Saha acknowledged that education is a device to promote political assimilation and recruitment, to increase income, to maintain and develop society/culture, and to expand a supply of human resources, and therefore, serves for the interests of the whole society. On the other hand, education is believed to play a negative role depending upon which group benefits most from the results of progress. Therefore, education can contribute to national development only when the concept of equal opportunity is incorporated.

A detailed analysis of education and national development revealed that the contribution of education to economy could be found in the distribution of income, the expansion of employment opportunities, and

economic growth. In short, education contributed to maximization of labor productivity, helped capital accumulation, and promoted economic growth of the nation by making technological innovations possible.

The correlations between educational investments and economic development were examined through a simple correlation analysis, an input-output analysis, and a factor analysis. A review of the previous research in Korea that employed the analysis methods indicated that the degree of contribution of education to economic development was considerable.

1-C. Status and Problem of Educational Investments in Korea

To examine the status of educational investments in Korea, this study first analyzed the structure and scale of education budget. The structure of Korean education budget was divided into general government funds and local education finance. The education portion in the total government budget was 22.7% as of 1992, and the ratio of public educational expenditure to GNP was 3.3% as of 1991. Compared to other countries, the proportions were low. Problems were found in securing education budget, such as a low priority of education in national government funds and local educational finance, unsubstantial effects of education tax collection, insufficient independence of local educational finance, poor transfer grants from local autonomous organizations, difficulty in securing financial resources due to restrictions on tuition increases, and disproportionate amount of wages.

On the other hand, an analysis of the backgrounds and causes of poor educational investments revealed that the weakness of educational financing structure was due to uniform government principle of budget reduction, low taxation ratio, excessive investments in state-owned business, irrational banking and monetary policy, and an evaporation of money because of an overissue of government bonds.

The excessive number of students per class and school, the lack and deterioration of school facilities, the definite shortage of teachers, and insufficient fringe benefits for teachers were identified as educational problems arising from poor educational investments. In addition, the prolonged expansion of preschool education and free junior high school education, the lingering progress in vocational and science/technology education, failing private education, and the enormous burden of private educational expenses on individuals were also due to poor educational investments.

1-D. Educational Investment Policy of Other Countries

A comparative analysis of the levels of economy (GNP and GDP) and educational investments (public educational expenditure) revealed that the educational investment level of Korea was considerably lower than those of some countries at a similar economic level, and even lower than those of the most impoverished. In addition, the educational investment policy of 10 countries that maintain a similar level of economic progress--namely, Israel, Malaysia, Mexico, Argentina, Brazil, Venezuela, Czechoslovakia, Hungary, Poland, and Spain--were thoroughly

analyzed for a comparison with Korea. The structure of revenues centered around indirect taxes and a small scale of government finance were analyzed as restraints on educational investments in Korea. Compared to such countries, Korea showed a high degree of quantitative progress (percentage of students attending school), but a low degree of qualitative progress (number of students per teacher, for instance).

Based on the above analyses, the conviction that Korean educational investments is poor in the standards of developed countries, in those of some countries at a similar development level, and in those of other countries at a lower development level.

1-E. Survey on Status and Expansion of Educational Investments

A survey on the status and expansion of educational investments among local assemblymen, civil officers, teachers and parents showed that 91.1% of the 1,895 total subjects believed that education contributed to national development. To be precise, 96% of the respondents answered that education contributed to sociopolitical development, and 77% responded that education contributed to economic growth.

As for the significance of an education portion in national finance, majority (64.7%) replied educational expenditure should be expanded first, and a dominant opinion (45.1%) was that such increased budget should be invested first in primary education and a reduction of the number of students per class. A subjects were also well aware

of the importance of educational expenses and the awareness for private educational expenses in home economics. The majority (43.1%) replied they planned to increase educational expenses within possible means; and 97.8% answered they would not reduce educational expenses that might exceed their means.

Expenditure for private tutoring, a typical form of private education, was found to be necessary by 46.6%; however, a majority (87.6%) expressed that it was a heavy burden. A survey on the adequacy of present public investment showed that 88.4% believed it was insufficient, 78.1% replied an education portion in government budget was too small, and 42.4% pointed out economy-oriented politics as the cause. The government budget office (37.5%) and the national assembly (35.5) were named as responsible parties for this shortage of investments. As for the amount of tuition and fees at different school levels, most subjects replied that it was adequate at junior high and high school levels, but too high at junior and four-year college levels.

As for an idea to increase tax as financial resources for education, most subjects (66.8%) replied negatively. A large majority (90%) agreed upon the effects of Education Tax and 36.6% replied positively to its expansion.

In short, the survey suggested that Koreans acknowledged the significance of education and strongly believed in the necessity to expand educational investments, but were very negative about securing financial resources through increasing burdens on the benefitted.

1-F. Rationale for Expanding Educational Investments

This study recognized that a rationale for expanding educational investments should follow the general problems in logic, such as formative rules of deduction and an elimination of possible errors, and a structure of logic was necessary not to make an error in an inductive or deductive approach. Based on such recognition, a rationale for expanding educational investments took a form of hypothesis-verification-conclusion. A hypothesis herein was determined as 'educational development contributes to national progress and is possible only with educational investments.'

The development and association processes of this conceptualized logic structure had different association patterns, and each pattern had specific verification items. Following a stratification, this logic structure was developed further through a systematic approach.

The stratified logic to support expanding educational investment was examined for the possibility of formative and non-formative errors in an induction process and the possibility of no- or improper-observation and cause-and-effect errors in a deduction process. In conclusion, none of these errors was found.

2. RECOMMENDATIONS

Based on the above results, this report recommended the following measures to increase educational investments.

First, the previous studies that analyzed the contribution of

education to national progress, using the theory of developmental education theory had reported that education assists progress in every aspect of politics, economy, society and culture, and makes the most contribution to economic development in particular. Korea is still in the process of economic development, and therefore, should increase investments in education more than anything else. Although two perspectives exist in the developmental education theory, they are in nature supplementary to each other and suggest that educational development should proceed beyond national progress to expand social equality by providing equal opportunities in education. Education, therefore, is related to securing political replenishment, increasing economic income, realizing social welfare and equality, and satisfying cultural needs. Particularly, the contribution of education to an income increase, which can be analyzed explicitly, is enormous. Increasing educational investments in a developing country like Korea would help national development.

Secondly, the current phenomenon of extremely low educational investment is caused by an inconsistent allocation process for education budget, a weak financing system, a reduction-oriented attitude in government budget, a low taxation rate, irrational financing/monetary policy of the government, and an evaporation of money. To increase educational investments, these problems should be eliminated. Particularly, the excessively reduction-oriented government budget should be increased to expand public welfare through education. This is a legitimate conclusion from an earlier analysis that, compared to Korea, the scale of educational investments in foreign countries at

a similar, or even lower, development level turned out higher than that of Korea.

Thirdly, increasing educational investments should be pursued gradually not at a private level but at a public government level according to a strong priority order for the benefit of the majority. Government policy should consider the survey results, which already revealed the Korean public in general objected the proposal that individuals to be benefitted should bear the burden of providing financial resources despite that they acknowledged the importance of education and the necessity of increasing educational investments. Therefore, raising student's tuition and fees to secure a financial resource is not well supported.

Fourthly, the responsible party for educational expenditure should be clarified. Caught between the two powerful government bodies, the Economic Planning Board (EPB) and the Ministry of Domestic Affairs (MDA), the powerless MOE is doing its best to justify provisions for education, trying not to contradict them. Currently, however, the EPB insists that, on the basis of Article 9 of the Local Autonomy Law, the local government should be responsible for founding and operating public primary and secondary schools, and its general account should provide a part of educational expenditure as educational investments which is most crucial for welfare of local residents.

On the other hand, the MDA insists that the MDA--city/province --city/county/district structure be completely separated from the MOE--city/province board of education--city/county/district board of education structure. It also persists that the general account of the

local government have no ground or responsibility for further provisions for educational expenditure since the Local Financing Grant Law and the Local Education Financing Grant Law define financial responsibilities and resources of two structures separately. To request financial help, the MDA insists that such systems as an Education Committee or Board of Education be abolished and incorporated into a general autonomous organization.

The points of MDA and EPB appear to be legitimate. To solve this problem, therefore, an intragovernmental and national consensus should be formed on who is responsible for educational expenses. The tuition for kindergartens, which are predominantly private, may be decided by themselves and paid by parents. Elementary education, which is compulsory, and junior high school education, which will be made compulsory in the near future, may be initially a government responsibility and to a limited extent paid by parents. High school education may be supported by the government and parents. College tuition may be primarily a responsibility of the benefitted, while the government supports expenses for facilities, which go beyond the power of individual colleges, as well as research grants for national policy goals.

In short, the government should finance at least operational expenses of compulsory education institutes (total amount of personnel, administration and facility expenses). For a stable procurement of educational financing resources, remaining expenses for general education should be explicitly divided between the government concessionary grant and the general account of a local government.

Fifthly, investments for college education can be separated from education budget to maximize effects. A summer seminar and special conference of university presidents was held on 8 July 1992. Dr. Lee, Han-bin, Chairman of the Board of Trustees of Korean Institute of Science and Technology, suggested in his keynote speech entitled 'Prospect of Korea in the 21st Century and the Role of University' that two fields of college education and science/technology research should be given the first priority in Korea over national defense, social welfare, and general education. He also recommended the MOE be fully devoted to general education, the Ministry of College Education (MCE), currently a board within the MOE, be separated and independent from the MOE, and the Ministry of Science and Technology be merged to the MCE. His suggestion can be a possible measure to correct a viewpoint within the EPB that is concerned only about the proportion of education in total government budget, and to expand scanty investments in college education compared to general education.

Sixthly, both inductive and deductive rationale for increasing educational investments proved to be valid. The system of logic for educational investments--educational development--national development suggested in this study observed formative rules of logic and an elimination of possible errors, and therefore, can be used as a fundamental logic for further procurement of educational investments. Particularly, the system of logic suggested in this study added a logical structure to the hypotheses of conceptualized logic and to each link among them, and provided validation items within each structure. This system, then, can be used in other fields.

33. A STUDY ON MEASURES TO IMPROVE TEACHER RECRUIT AND TRANSFER SYSTEMS

Lee, Yun-sik
Han, Man-gil
Yu, Hyun-sook

This study aimed to seek for measures to improve teacher recruit and transfer systems in public and private schools with the launch of local self-governing education system. The research was carried out in five areas: analysis of the nature of personnel administration in local self-governing education system, focusing on teachers; analysis of the theoretical framework for teacher recruit and transfer systems; analysis of the current status and problems of teacher recruit and transfer systems; analysis of requests in regard to teacher recruit and transfer systems; and exploration of future directions to improve teacher recruit and transfer systems.

The research methods were an analysis of previous studies and materials in the field, a survey, and an interview. Four types of questionnaires were developed for different subjects: teachers at public schools, those at private schools, professors at teacher training institutions, and beginning teachers appointed in 1992. The questionnaires were mailed out or personally handed over. To analyze the current status and problems of teacher recruit and transfer systems and to seek for possible improvements, "Seminar on How to Improve Teacher Recruit and Transfer Systems" was held on 10 July 1992, inviting specialists and municipal education board officials engaged in the field. To establish research directions and to analyze the current status and problems of these systems, a consultation committee of

specialists was also administered simultaneously. Based on the findings of this study, the following measures were recommended to improve teacher recruit and transfer systems.

1. Measures to improve teacher recruit system

The teacher recruit system in public schools should be changed to promote professionalism in teaching career; to allow more comprehensive evaluation standards in recruitment; to contribute to the development of the related curriculum adopted by teacher training institutions; to reflect demands of practicing teachers; and to be closely related to overall teacher recruit and supply policies. Based on the basic principles suggested here, the following actions were recommended as short-term solutions.

As for screening authority and management, (1) each city/province board of education in charge of recruitment should be allowed maximum autonomy in determining an age limit for applicants, regulating recruitment process and method, and rearranging proportions of various standards in screening; (2) The basic framework of the current screening system may be retained for more efficient management, but if necessary, the content of the first and second screening phases should be rearranged; and (3) Specialists, including professors and teachers at primary and secondary levels, should participate in developing a written test to improve the validity and reliability of test items.

As for college grades as an evaluation standard, (4) each city or province should be allowed to adjust the weight of this category within

the range of 30 to 50% in the first screening of secondary school teachers; and (5) All of the grades earned throughout four college years or eight semesters should be taken into consideration.

As for the allowance of supplementary score, (6) each region should be allowed to regulate/utilize the factors and ratio of supplementary scores, according to its particular situation, and the upper limit for the ratio of supplementary score should be extended up to 20% of the total score; (7) To attract more male teachers, fixed supplementary mark, currently 5%, should be granted to veterans, and a waiver of military service may be awarded to male students who pass a public screening; (8) Certain supplementary score may be granted to those with double majors or an additional minor; (9) In granting supplementary score, a preference of experienced teachers over beginners, who are all graduates of national and public teacher training institutions, should be reduced; and (10) The current practice of granting fixed supplementary score to graduates of teacher training institutions and other colleges should be maintained continuously.

As for written and interview tests and screening period, (11) efforts should be made to improve the content and method of an interview test; (12) Evaluations of general teaching capability and actual skills in arts and physical education should be reinforced; and (13) Efforts should be made to readjust/shorten the period of time required to complete open screening.

The following actions were recommended for long-term development: (1) For an efficient supply of teachers responsible for regional education in the age of autonomous education, cooperations between a

city/province board of education and local teacher training institutions should be reinforced; (2) The education environment in certain regions may happen to be unfavorable compared to other regions, and therefore it is difficult to recruit excellent teachers. They may consider a possibility to select and consign those high school graduates who are interested in teaching career to teacher training institutes of the region or nearby areas, working closely with the involved institutes; and (3) For a steady supply of teachers to special areas within the region--rural villages, islands, or remote sectors--a city/province board of education may select qualified students among volunteers or graduates of high schools in those areas, consign them to teacher training institutes, appoint them through separate screening, and commission them to teach back in those areas for a certain period of time.

The desirable directions for the future development of a teacher recruitment system for private schools were as follows. The principles of balanced development and equal opportunity between national/public and private schools should be observed. The uniqueness and autonomy of private schools should be respected. The responsibility of private schools should be heightened for further progress.

Based on these basic goals, the following measures were recommended: (1) Open screening and appointment of teachers at each school is strongly urged; (2) If desired by private schools, the regional associations should hold a collective open screening for teacher appointment; (3) When it is difficult to recruit teachers for the private schools located in a small town/village or a special area,

the pertinent city/province board of education should require a certain number of public school teachers to be stationed at those schools for a specific period of time; (4) Private school teachers should be allowed more opportunities to be appointed to educational specialist posts and public schools; (5) In addition to transferring private school teachers to public schools, relocating teachers among private schools should be considered; and (6) To develop a teacher recruit system for private schools, incentive strategies for teaching career need to be reinforced.

2. Measures to improve teacher transfer system

In order to improve the teacher transfer system, it should be directed to enhance professionalism of teachers; encourage a sense of commitment and procure acceptable living conditions; consider teaching experience and capability proportionately; allow teachers an equal opportunity to be stationed under a desirable teaching environment as much as possible; respect opinions of teachers and residents as much as possible; allow transfers between cities and provinces; and improve professionalism and efficiency of the system.

Based on the above goals, the following measures were recommended. As for transfer areas, periods and quota, (1) transfer areas should be regularly readjusted to consider such factors as changes in geographic conditions or intensification of competition. (2) The standard period of service at one school should be fixed as 4 to 5 years, and any transfer within 3 years should be restrained except for an inevitable

case; however, if a teacher in a non-competitive area desires, he/she should be allowed to serve at the same school for 10 to 15 years. (3) The number of teachers transferred at one time should be limited to one third or less of the total to guarantee a routine school operation and effective education.

As for a rotative appointment, the following measures were suggested. (4) Rotative appointment means that a teacher, upon completing the service in a district for a certain period of time, is automatically transferred to the next location on a regular basis. The transfer areas may be classified into 2 to 3 zones to let teachers serve in a competitive and a non-competitive district consecutively. (5) To prevent the possible rigidity and uniformity in transfer caused by a rotative appointment system, this should be permitted some flexibility, exempting certain schools and classes to meet their regional uniqueness, if necessary. In addition, teaching capability and attitude in classroom should be evaluated and considered in a transfer screening procedure. (6) Exception clauses, which are to allow more flexibility in the transfer system, should be concerned with matters directly related to teaching activities or acceptable living conditions. In addition, a clause that specifies a favorable consideration for awardee of medals and decorations need to be deleted.

The following measures were recommended to reward and benefit teachers stationed at islands and remote districts. (7) A raise in pay and allowances, expansion of educational facilities, and consideration of supplementary service score were recommended as rewards. For a drastic increase in service compensation for those stationed at islands

and remote districts, the current scheme of fixed monthly amount (from 7,000 to 23,000 won or from 9 to 30 US dollars approximately) should be changed to a ratio-based one (5 to 15% of monthly pay). The superintendent of a city/province board of education may grant merit points beyond the limit of 3, which is to be reflected in promotion within the region.

As for exchanges of teachers between different regions or public and private schools, (8) the superintendent of a city/province, in principle, has independent authority in teacher recruitment in autonomous education; however, exchanges between different areas need to be activated for the time being to solve an existing problem of regional disparity between supply and demand for teachers. (9) To encourage professionalism and commitment in private school teachers, they should be primarily considered for a special public school appointment, given the following conditions: when a school is closed down, or a class terminated/diminished, and a surplus of teachers occurs, or a one-to-one exchange between public and private schools is possible. In addition, opportunities for private school teachers to be appointed to specialized posts should be extended.

As for an effective, reasonable administration of transfer, (10) the whole procedure should be computerized and the staff support in administration should be initiated and expanded. To establish reasonable standards and principles of transfer, the executive board for personnel, which are operated in few regions, should be activated. (11) The functions and roles of the Ministry of Education, city/province board of education, and individual school are to be

readjusted. The Ministry of Education should establish nationwide regulations and principles of transfer, and become a moderator between cities and provinces when an issue calls for discussion/adjustment. A city/ province board of education should organize specific personnel system and principles to meet local needs, and particularly, establish own teacher recruitment plan. An individual school, centered around the principal, should make a rational decision upon teacher transfer, while a district board of education should observe as much as possible school's decision in administering transfer.

34. A STUDY ON EDUCATIONAL POLICY FOR KOREAN UNIFICATION (I)

Park, Jae-youn
Huh, Byung-kee

As the international atmosphere surrounding the Korean peninsula has been improved in favor of Korean unification and North Korea is expected to open her society in the near future, the unification policy of South Korea has become more significant and critical than ever. Under given circumstances, the development and implementation of specific education policies for unification are urgently needed.

This study attempted to establish educational goals, aiming at the formation of a national community and the ultimate accomplishment of national unification. Following the development and analysis of specific policy tasks, the following suggestions on policy directions

were provided.

1. Goals of Educational Policies for Unification

The main policy goal of the Korean government for unification, 'the Korean National Community,' is to successfully accomplish national unification through a series of stages toward an eventual integration of the two Korea under a unified constitution. The first stage of the unification process, 'National Reconciliation and Peaceful Coexistence,' is to solve problems and conflicts between South and North Korea in peaceful ways, to recognize the existing differences in ideology and socio-political system, and to strive for mutual prosperity in coexistence and prepare for the formation of the Korean Commonwealth. The second stage of the Korean Commonwealth is to form social, cultural and economic community and prepare for unification more specifically. The last stage is to develop the Unified Democratic Republic in which individual freedom, happiness and human rights will be guaranteed.

Goals of unification educational policy, based on the objectives of unification policy of the government, were to develop among the public the ability and attitude needed for the formation of the Korean National Community and the realization of unification; and to integrate the two totally different educational systems of South and North Korea.

Objectives at each stage of the unification process were identified as follows: (1) at the first stage, to cultivate among the public the ability and attitude needed for maintaining the peaceful

relationship between South and North Korea, and to prepare for educational integration through educational exchanges and cooperations; (2) at the second stage, to foster among the public the ability and attitude needed for developing a social, cultural and economic community, and to prepare through continuous educational exchanges and cooperations for an ultimate national integration after the political unification; and (3) at the final stage, to develop among the public the ability and attitude needed for the new social order and integrated educational system for unified Korea.

2. Main Tasks of Educational Policy for Unification

1. Reinforcement of Unification Education

Reinforcement policies for unification education were developed on the basis of three principles. (1) Unification education should be dealt with in relation to all relevant subjects. (2) The content of unification education should maintain relevancy and timeliness. Finally, (3) management and supporting systems for unification education should be improved and specialized.

Suggested policy tasks were as follows: (1) to make a systematic goal structure of unification education that could provide guidelines in selecting proper topics, making materials, and managing classes; (2) to improve the organization and operation of curriculum through expanding subjects related to unification education and revising textbooks and materials; (3) to reinforce administration systems (e.g. expanding supervisory organization and establishing research

institutes); and (4) to improve in-service training of teachers and management/supervision personnel to upgrade their abilities to cope with a new situation of national unification.

2. Development of Educational Systems for Unification

In order to form the grounds for an integrated educational system in South and North Korea before the unification, to effectively cope with educational problems after the unification, and to establish a new educational system in accordance with the ideology of unified Korea, such educational systems as compulsory education, curriculum development, teacher training, non-formal education, and educational administration/finance should be reorganized and remodeled. Main tasks were identified as follows: (1) the expansion of free compulsory education in South Korea prior to unification, and the cultivation of an ability to adjust oneself to a new social order after unification; (2) the development of new retraining programs and organizations for teachers, especially for North Korean teachers, to help them overcome an ideology-oriented way of thinking and behavior and to make them qualified to take education responsibilities in unified Korea; (3) the development of non-formal education system to solve psychological discontent and to satisfy various kinds of educational demands after unification; and (4) the formation of educational administration/finance system in unified Korea through strengthening local educational self-governance.

In addition, further steps should be taken to cope with problems in educational administration which might appear soon after unification

and to minimize social and psychological confusion. They would be provisional agreements on temporary management of the existing school systems; mutual approval of graduation qualifications and academic degrees; and teacher recruitment and student admission/transfer during a transitional period.

3. Activation of Educational Exchanges and Cooperations

In order to improve mutual understanding of education between South and North Korea and to develop the integrated educational system of unified Korea in future, it is necessary to steadily carry out projects of exchanging education personnel and materials and of cooperating in solving common educational problems.

Educational exchanges and cooperations should be attempted in non-political areas first, such as natural science and archaeology, and become gradually institutionalized. This could minimize conflicts between the two societies and exalt national identity.

Main projects for educational exchanges and cooperations at the coexistence stage were (1) exchanges of educational statistics, information and research papers, (2) exchanges of people through seminars sponsored by two Korea, sports events, and professor exchange programs, (3) joint research projects on topics of common interest, and (4) active participation in international organizations such as UNESCO and APEC to make the international atmosphere favorable to the unification of Korea. These projects should be continued until the stage of the Korean Commonwealth. IT was recommended to establish the 'Basic Agreement on Educational Exchanges and Cooperation between South

and North Korea' as an institutional and legal foundation, specifying the content, procedure and mutual obligations in educational exchanges and cooperations.

At the stage of the Korean Commonwealth, the following projects would be pursued: (1) joint development of curricula for subjects that would not be directly related to specific ideologies, such as geology and natural science; (2) joint development of the integrated educational system, including school system, educational administration/finance, curriculum, teacher training, etc.; (3) establishment of model schools to evaluate the validity and appropriateness of the new curricula and integrated educational system jointly developed; (4) and support of educational reform in North Korea to reduce educational differences between South and North Korea.

4. Reinforcement of Policy-Implementing Structure for Unification

In order to implement unification educational policies effectively, it is necessary to expand and reinforce the existing systems and to establish new organizations at each stage of unification process.

At the coexistence stage the following recommendations were provided: (1) to form under, 'the Joint Committee on Social and Cultural Exchanges and Cooperations,' 'the Committee on Educational Exchanges and Cooperations' which would consist of government officials and education specialists from both parties and would function as a working-level organization to carry out specific projects for educational exchanges and cooperations, such as exchanging educational

materials and students; (2) to organize a new department of unification policy within the Ministry of Education where each existing department of MOE would participate; and (3) to strengthen government-funded research institutes.

At the stage of the Korean Commonwealth, it was suggested to establish an education subcommittee under 'the Joint Cabinet Meeting of South and North Korea' to develop the common curricula, integrated education system, and transitional legal system.

At the final stage of unified Korea, it would be desirable to have an educational reform committee to carry out such projects as the evaluation of educational systems of South and North Korea, and orientation/publicity for the integrated educational system to educational administrators, teachers and the public of a new country.

D. COMPUTER EDUCATION RESEARCH CENTER

35. A STUDY ON ADMINISTRATION OF COMPUTER SCIENCE COURSES AT PRIMARY AND SECONDARY SCHOOLS

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Shim, Wung-ki
Lee, Hee-soo
Lee, Yong-hak
Cho, Jung-woo
Yang, Jai-myung

The ultimate purpose of this study was to suggest policy measures for and practical solutions to various problems in initiating a computer science course at primary and secondary schools with the implementation of the 6th National Curriculum in 1995 which mandates computer science as a separate discipline.

Major research tasks, therefore, were to review the previous studies on computer education and the previous teaching experiences of the researchers in order to figure out solutions to the above problems, to revise and supplement these solutions through specialist symposia, and to investigate the practicality of such solutions through interview trips. Most of participants in the specialist symposia and interviews were government officers of the Ministry of Education and city/province boards of education who were policy makers in computer education, principals, computer science teachers, and executive officers at individual schools.

Major Research Results and Recommendations

The research tasks were investigated in the order of the status,

problems and resolutions.

Regarding administration of computer science curriculum, recommended measures were (1) establishing and operating a committee for computer science curriculum management; (2) mandating minimum class hours; (3) systemizing and specifying the objectives and content of the computer science course; and (4) initiating instruction and evaluation methods.

Regarding qualified teacher recruitment, the researchers recommended and developed measures for establishing an in-service training program with a minor in computer science; expanding computer science teacher training program and computer science education department; initiating a computer science minor at colleges of education; introducing a computer science department in the advancement program of teacher's colleges; and recruiting teachers through a special qualification test offered by the Ministry of Education.

Regarding computer facility/equipment acquisition and management, recommended measures were to revise the existing regulations on the number/size of computer rooms, the number/model/options of computers, and computer facility/equipment, and to improve computer room operations. In relation to the 6th National Curriculum which emphasizes an ability to utilize application software, recommendations were (1) to expand government investments in the development of application software; (2) to encourage professional firms to develop application software; and (3) to delineate characteristics of application software.

36. DEVELOPMENT OF CAI PROGRAM PROTOTYPES FOR PROBLEM-SOLVING TASKS

Kim, Dong-sik
Kim, Young-ae
Shim, Hye-kyung

The purpose of this study was to develop prototypes that could help developing CAI program for problem-solving tasks. The prototypes developed through this study consisted of simplified storyboards or guidelines that indicated how problem-solving tasks could be organized and described differently on a computer screen.

For the development of a rapid prototyping, theories were reviewed with an emphasis upon problem-solving tasks, cognitive science, artificial intelligence, and specialist system. The theory review indicated that problem-solving tasks could be improved through a proper combination of problem-solving knowledge and strategies as well as monitoring strategies. Accordingly, basic directions for prototype development were established.

On the basis of these directions, four prototypes were developed in the fields of mathematics, nature, science, and social studies. These prototypes were reviewed by instruction technology specialists for their operational possibility and relevance to theories.

Two prototypes were selected out of the four that faithfully followed related theories and developed into actual programs. The two prototypes were applied to primary school students to verify their effectiveness and validity. The pre- and post-application tests to assess students' achievement of learning objectives proposed in the

programs showed no significant statistical difference.

This result can be interpreted that it would be difficult to improve student's problem-solving capability through a short-term application of such programs. On the other hand, a survey of students' attitudes toward test programs revealed a preference of new CAI programs developed by this study. Therefore, further research is desired to produce new CAI prototypes beyond ones suggested here.

37. A STUDY ON UTILIZATION OF EDUCATIONAL LAN SYSTEM

--Emphasis on Groundwork for Introduction and Utilization--

Kim, Dong-sik
Jung, Sung-moo

This study aimed to build up a desirable environment for the effective utilization of the educational LAN system, to develop and disseminate software to be used in the system, and examine prerequisites for its application to teaching/learning activities.

Based on the above goals, the major tasks of this study were determined as follows.

- To recommend the step-by-step initiation and stable installation/operation of the educational LAN system;
- To identify possible problems in operating the existing educational programs within the LAN system, analyze their causes, recommend improvement measures, and develop a software programming

guidebook to inform programmers of the functions and usage of educational computers and LAN system;

- To analyze the types and causes of possible difficulties in using the LAN system, and explore preventive measures;

- To systemize information resources to be shared through the LAN system and seek for measures to exchange/manage them within the system.

To carry out these tasks, how to utilize the educational LAN system was first determined by examining and analyzing the previous literature or reference materials on technological trends of overall LAN systems, characteristics and functions of educational LAN systems, and preceding cases of introducing and utilizing such systems. In addition, they explored ideas for an adequate installation and operation of the educational LAN system by inquiring the opinions of the users at schools and organizations where an educational LAN svstem was in use; examined major operational problems; and inferred possible preventive measures. They also tested existing educational software used in the LAN system to look into possible obstacles and their improvements.

The recommendations of this study were made on the improvement and development of educational software, installation of the educational LAN system, and exchange and management of shared information resources within school. To help the system improve teaching methodology, however, research on developing network programs and models as well as in-service training for teachers should be continued.

38. A STUDY ON COMPOSITION OF GUIDEBOOK FOR SCHOOL COMPUTER ACQUISITION AND UTILIZATION

This study aimed to examine the state of preparation and planning on the part of individual schools for computer acquisition and utilization, analyze actual utilization and management practices for school computers, and eventually devise a guide for achieving effective acquisition and utilization.

To achieve the above goals, tasks were determined as follows.

First, analyses were conducted on the trends and cases, both domestic and overseas, of computer acquisition and utilization for theoretical investigations on the preparations and planning for school computer acquisition and usage as well as the utilization and management of school computers. Based on the endeavors, an acquisition/utilization procedure model was investigated.

Secondly, points of consideration for each stage were determined and categorized on the basis of the above model. In addition, pre-acquisition arrangements and post-acquisition utilizations were examined to grasp what actions had been taken in the procedure. Obstacles that schools had encountered in computer acquisition and utilization were also analyzed.

Thirdly, a survey was conducted for schools to check items to be specifically explained in the guide for the acquisition/utilization process.

Fourthly, a factor-analysis model for school computer acquisition

and utilization was developed, and subsequently, adequate items were selected on the basis of the analysis model. The validity of the guide was reviewed.

To carry out the above tasks, this study employed the following research methods and procedure:

1. a review of trends in utilization trends and practices of school computers in major countries, an exploration of an acquisition/ utilization model on the basis of the survey, and an analysis of points of consideration at each stage;

2. a review of the 1992 project planning, an examination of a development model for computer acquisition/utilization guide, an exploration of organizational directions for the guide, and a review of guide drafts; and

3. using questionnaires and interviews, a survey of schools on computer acquisition and utilization, points of consideration at each stage of acquisition/utilization procedure, and components of the guide.

The guide was provided with the whole process in four fields of hardware, software, teacher training and maintenance, and listed with necessary information at each stage of acquisition, installation, utilization, evaluation and supplement.

The guide consisted of five chapters. Chapter one dealt with the overall structure of and instructions for the guide. The four chapters were divided into two parts. Part one included the activities for acquisition and utilization at each stage. Part two introduced points to be checked or considered at each activity. Target readers of the

guide were school executive officers in charge of computer acquisition and utilization.

39. A STUDY ON DEVELOPMENT OF EDUCATIONAL RESEARCH INFORMATION DATABASE SYSTEM

Lee, Ok-hwa
Lee, Man-hi
Yoo, Jae-taek

This study was to construct an educational research information database (DB) system that could provide comprehensive information for educational research. Since a development of database system takes an extensive period of time and resources, this study was intended to establish a basis for a long-term project for the years from 1992 through 1996, and developed a pilot system as a tentative information DB.

In order to collect collective opinions on the construction and utilization of the database, a DB support committee was organized to reflect computerization demands from the concerned researchers, who are both users and providers of information. Through consultations of this committee and a survey of demands, a five-year (1992-96) plan was established that could serve as grounds for constructing an educational research information database. This long-term plan included the content of and development budget for the database; collection, arrangement/input and processing of constructed data; continuing

maintenance, revision and advancement of data.

The substance of database included in the long-term plan was as follows:

1) library database to offer a list of various monographs, separate volumes, research reports, master's theses and doctoral dissertations, and diverse teaching/learning materials on education, etc.,
2) educational statistics database to provide basic statistics for different school levels, various domestic and overseas educational indicators, basic statistics for educational expenses, and school facilities, etc.,
3) educational software database to provide information about various domestic and overseas educational software, including those developed by KEDI,
4) address database to list national, public/private, primary/secondary schools as well as education-related organizations,
5) research project database to list the field research projects supported by the Ministry of Education, board of education, and educational organizations, and references on the operation of experiment schools and field research activities,
6) questionnaire database to list questionnaires and their content as developed for this study, and
7) Bulletin Board System (BBS) to provide various public notices, announcements of seminars and conferences, exchanges of educational materials, and database systems.

The above content should be redefined as social demands change. For this first year of database development, two tentative information search systems--School Basic Information (SBI) system that expanded the school directory, and the BBS--were developed.

The SBI consists of basic data on schools--their address and number, students, and teachers; and data on organizations/associations--the address of each board of education and education-related groups. The objectives of developing this system were to allow access to basic data on schools, to support sampling where to mail out various questionnaires used in KEDI research projects, and to print out mailing envelopes.

The BBS makes possible searches and exchanges of various education-related data through using the functions of a host communication program of the KEDI database and bulletin board, electronic mail box, and public software niche functions of other BBS.

Provisions of hardware and software required for the development of the educational research information database system would be based on the "National Network Project--Educational Network System" hosted by the Ministry of Education. The expected effects of this study are as follows:

1) to improve efficiency in utilizing research references through the information collection, analysis, and processing regarding educational studies,
2) to ensure the stability in long-term database developments,
3) to ensure the computerization of mailing questionnaire as a research support system,

4) to allow an easy access to basic information about schools and education-related organizations within the nation, and

5) to enable users to share and exchange education-related information through the BBS.

E. AIR & CORRESPONDENCE EDUCATION

RESEARCH CENTER

40. AN EXPERIMENTAL OPERATION OF VOCATIONAL TRAINING COURSE FOR AIR & CORRESPONDENCE HIGH SCHOOL

Yi, Bum-hong
Kim, Young-joo
Kang, Jong-hoon
Park, Im-jong
Kim, Sook-kyung

This study aimed to assess the results of an experimental operation of the vocational training courses for Air & Correspondence High Schools (ACHS); to analyze the possibility of establishing such courses, problems found in its operation, and the amount of educational expenditure; and eventually to come up with a resolution that could bring about significant progress for the ACHS.

For an effective experimentation, the researchers carried out broad foundational research, and selected two major subjects to be taught--automobile maintenance and information management. Considering the characteristics of students and the conditions of training centers responsible for its operation, the researchers assigned appropriate majors and units to the course: 32 units of 6 general areas and 50 units of major areas.

For the period between March and November of 1992, with the cooperation of the Seoul Metropolitan Board of Education, one class of information management major (originally of 43 students) and the other of automobile maintenance major (originally of 32 students) were assigned to A-Hyun Vocational School. The experimental group were selected among those who were enrolled at the ACHS and expressed interest in the courses offered.

For instruction, standard methods of the ACHS were all employed--such as listening to broadcast lectures (on the radio and recorded tapes), independent home-study (using correspondence learning materials), and classroom lectures; however, there were used differently according to the major field. General areas were taught mainly through listening to broadcast lectures on the radio and independent home-study. Major areas, however, were concerned with theories, and therefore, taught mainly through recorded lectures specially designed for this program as well as independence home-study using correspondence learning materials that summarized succinctly what to study. Since on-the-job training was also necessary for major areas, students were required to attend classes at the assigned centers for 45 days per year (almost every Sunday). Hence, the class hours for on-the-job training occupied 52% of those for major areas, which met curriculum requirements.

Following the operation of the program, the researchers conducted a comprehensive evaluation based on student observations, teacher interviews, and questionnaire surveys. The results were as follows: (1) A one-year training period was too short to achieve intended goals of this experimentation; (2) classroom lectures were more successful than expected, but the efficiency of broadcast lectures and independent home-study fell short of expectation; (3) general and major areas should be harmonized; and (4) organic cooperations among authorities concerned were lacking.

In addition, the amount of direct educational expenditure for the program operation was approximately 19.8 million Won; however,

operating the program on a larger scale and re-using the developed materials after revisions would reduce expenses considerably. Despite a few problems that had been identified, the fact that more than 20% of students passed the Second Class Technician Certification Test, proves that such a course could be established successfully in the ACHS.

II. EDUCATIONAL BROADCASTING SYSTEM

The year of 1992 marked the second anniversary of the opening of the Educational Broadcasting System (EBS), and provided grounds for a take-off. This year witnessed the settlement of an overall organization and regulations, the reinforcement of equipments and facilities, and a considerable improvement in the quality of broadcast programs. Following a re-allotment of budget and resulting infrastructural changes, extensive arrangements were made in personnel and programming. Overall debates on the status of EBS were also noticeable.

While maintaining the fundamental principles of the system--namely, pursuing a quality education, extending opportunities of education, and promoting openness of education--the 1992 programming aimed at producing programs of non-formal education as well as formal education. Accordingly, it could provide grounds for the realization of life-long education, which is an ultimate goal of EBS for future. While learning programs were reduced, preschool and adolescent programs were expanded, and educational/cultural programs intended for adults as the target audience were introduced and reinforced.

In the aspect of management, the structure was partly reorganized for competency. In the 79th session on March 27, the board of trustees decided to amend operation regulations of EBS to initiate the bureau of management, which consists of departments of advertisement and publication, as well as the department of editing technology under the bureau of technology. Accordingly, the quota increased from 457 to 492.

An overall diagnosis of management was carried out between March 10 and June 20 for the re-established standing and competency of EBS. Here measures to improve its status and organization, the scale of

required manpower and equipments/facilities to improve the quality of broadcast programs, the proper amount for budget, and financing proposals were suggested.

Consequently, the System Development Committee was organized for short- and long-term development planning. This committee determined possible measures to authenticate the status of EBS, to reform management, and to improve the quality of broadcast programs. In June the decree of educational broadcasting, consisting of the foreword, outline, program regulations, and code of conduct, was enacted and announced.

The year of 1992 also witnessed a quantitative growth in the aspects of equipments and facilities. Recording equipments were installed in the C-Studio and the editing office was in full operation, which contributed to improved production environment and better programs. In addition, the equipments at the main control room for radio broadcasting were replaced to enable automatic transmission.

Regarding business projects, the development and dissemination of learning materials were actively carried out; indirect advertisements through announcing sponsor companies and program reproductions upon request were increased; and several programs-- such as 'Extracurricular English at Primary School,' 'Interesting Science Class,' 'We are Dream-Trees', 'World of Vocations,' and 'EBS Paduk Class'--were sold to cable TV stations. In November EBS held the '1992 First Festival of Original Korean Traditional Children's Songs' under a joint sponsorship with the National Center for Traditional Music.

In-service training for the staff was also reinforced to improve

their job performance. Management discipline for executive officers at the director level or above was the first project and was carried out by the Korea Management Association. The training program for newly appointed recruits included desirable qualities of an EBS staff member and directions for satisfactory job performance.

Overseas training opportunities and exchanges were increased to allow the staff to acquire information about changes and progress of foreign broadcasting operations for better programming. Observation tours to U.S. cable TV stations were to grasp their operation structure and to explore in what fashion EBS could take part in the new media enterprise. Prior to an installation of M/W facilities, consultation meetings were held in the U.S. for their effective operation.

Regarding overseas exchanges, several staff members were dispatched to the annual Japan Prize Contest and the Zenporen for an observation of advanced educational broadcasting technology. After two years of preparation, an exchange agreement on broadcasting was signed between EBS and the TV Ontario of Canada. This agreement was to initiate a multidimensional system of cooperation for the development of educational broadcasting in the two countries through exchanging programs/material, encouraging program co-production, and rendering assistance for staff training.

Various research reports and a programming data manual on TV learning programs for primary and jun or high schools were published and distributed. 'Development of EBS staff training programs' specified what should be taught to achieve organizational goals of EBS based on a survey on the demands and perception of the staff about in-service

training. 'Survey on the utilization of EBS programs' was a report on how the students, teachers and parents in kindergartens as well as primary and secondary schools evaluated EBS programs and learning materials. As a reference for planning and producing educational programs, 'a programming data manual for primary school programs' and 'a programming data manual for primary school programs' were compiled for each discipline, and distributed to concerned individuals.

In short, the year of 1992 witnessed enormous qualitative and quantitative changes in every aspect necessary for an innovation, namely, management/production, equipments/facilities, and human resources.

1. TV Weekly Programming Schedule

The 1992 programming aimed to observe proper goals of educational broadcasting--pursuing a quality education, extending opportunities of education, and promoting openness of education. At the same time, teacher training programs and parents' programs for efficient educational process and social education programs to realize a life-long education system were also scheduled. For diversity, weekday programming was centered around formal education, and weekend programming around supplementary learning, extracurricular activities, and social education for adolescents and adults.

A. EBS-TV Weekly Programming Schedule (As of 08/30/92)

Day / Hour	Min	Sun	Mon	Tue	Wed	Thu	Fri	Sat	Day / Min	Hour
07	30	Basic Mathematics								
		Basic English								
08	30	Chinese Characters								
		Health Class								
09		EBS Music Hall								
10		EBS Paduk Class								
11	40	Korean History(R)								
		Man and Science								
12	10	Good Time with Practical Technology								
	40	Let's Do It Together								
13	10	Parents' Hour(R)								
	50	EBS Family Theatre								
14	50	Museum Report								
15	20	Home Encyclopedia								
	50	I'm an Inventor, too(R)								
16	20	Children's Encyclopedia							30	16
	40	Interesting Science Class	Ding - Dong - Dang Kindergarten			Ding - Dong - Dang Kindergarten(R)			50	
17		Children's Theatre	Elementary School 1st grade Program / Elementary School 3rd grade Program		Elementary School 2nd grade Program / Elementary School 4th grade Program		Children's Theatre(R) 05	We are 15 Dream-Trees		17
	25	Let's Learn Computers(R)	Fine Arts	Interesting Science Class(R)	Children's Music Class	Children's Encyclopedia (R)	I'm an Inventor 20 / 100	Let's Learn Computers		
	45	We are Dream-Trees(R)	Elementary School 5th grade Program		Elementary School 6th grade Program		Extracurricular English at Elementary School 40	Extracurricular English at Elementary School(R)		
18	20	Sunday Special Lecture	Basic Chinese Characters						05	18
			1st grade English / 2nd grade Science	1st grade Korean / 2nd grade Mathematics	1st grade Mathematics / 2nd grade English	1st grade Science / 2nd grade Korean	Social Studies / Technology	Korean History 25	45	
			5 Minutes Joining		The One and Only Earth		5Minutes Scientific Information		50	
19	40	World of Literature	World of Vocations				My Future	Plaza for Art(R)	50	19
		Teachers' Hour	Documentaries of the Globe							
			EBS Billboard				55 Way to Unification	Parents' Hour 25		
20	20	Sunday Special	Historical Site Report	Man and Science(R)	EBS Gallery	Searching for Traditional Heritage			30	20
			Korean Language Usage						50	
			English Conversation							
21	10	Fragrance of Korean Traditional Music	German Conversation		French Conversation		Chinese Conversation		15	21
			Japanese Conversation				Oxford English		40	
	50	Plaza for Art	TV Home Study(30 × 3)							22
22	50	Searching for Traditional Heritage							10	23
23	20	Footsteps of Life	Korea Air and Correspondence University Lectures(30 × 2)						10	24
24	00									

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B. EBS-FM Weekly Radio Programming Schedule (As of 08/30/92)

Day Hour	Min	Sun	Mon	Tue	Wed	Thu	Fri	Sat	Day Min	Hour
05		Korea Air and Correspondence University Lectures(30' × 4)								05
06										06
07	30	Opening the Window of Our Mind / Fragrance of Literature	TOEFL Lecture / English Conversation / Japanese Conversation / Chinese Conversation						15 / 30 / 45	07
08	30	Life Worth Living / Beautiful Custom of Korea	German Conversation / French Conversation / Spanish Conversation / Russian Conversation						15 / 30 / 45	08
09	05	Today's Meditation							05	09
	10	EBS Radio Billboard / Class for Housewives	Parents' hour						10	
10	10	Story Fountain							10	10
	20	Let's Dress Together	1st grade Programs			2nd grade Programs			20	
		Stories about Science	3rd grade Programs			4th grade Programs			35	
	40	Traditional-style Children's Song	Extra-curricular English at Elementary School / 5th grade Programs			6th grade Programs			45	
11	20	English Listening	Middle School English Conversation						20	11
		Sunday Special for Teenagers	Korean Traditional Music / Literary Works for This Week			Listening to Music / The Greats Who Brought Glory			40	
12		Sunday Music Salon	TOEFL Lecture / English / Japanese / Chinese / German / French / Spanish / Russian(R)							12
13										13
14	10	Story Fountain(R)							10	14
		Korean Language Usage	1st grade Programs(R)			2nd grade Programs(R)			20	
	30		Why Do Phenomena Happen?						25	
		Our Garden of Writing	Music Presents at Midday							
15	30	Learning with Thinking	3rd grade Programs(R)			4th grade Programs(R)			15	15
		Theatre Evergreen	5th grade Programs(R) / Teachers' Hour			6th grade Programs(R) / Teachers' Hour(R)			30	
16		Korea Air and Correspondence University Lectures(30' × 6)								16
17										17
18										18
19	20	Learning English with Songs	Middle School Home Study						20	19
			Korean			English				
		Literary Art Theatre	Mathematics			Science		Music	40	
			Social Studies	Korean History	Moral Education	Technology	Home Economics	Fine Arts		
20		Plaza for Us	High School Home Study						20	20
			Korean				Korean History	Society and Culture		
			English				Physics	Chemistry	40	
			Mathematics				Science I(last)	World Geography		
21		Korea Air and Correspondence High School Lectures(20' × 6)								21
22										22
23		Korea Air and Correspondence University Lectures(30' × 4)								23
24										24

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III. INTERNATIONAL COOPERATION ACTIVITIES

Since the foundation in 1972, KEDI has become recognized as a world-class educational research institute. The International Cooperation Division has taken initiatives, greatly contributing to the establishment of the reputable KEDI status.

The primary activity of International Cooperation Division is to support various collaborative projects with foreign educational research and development institutes in order to secure highly scholastic performance in quality and quantity. Promoting international exchanges of information about educational research and development, the Division held several international symposiums, workshops, and seminars. The Division also provided the international community with KEDI experiences, research outcomes in Korean educational reform and both domestic and overseas training programs to maintain high quality of educational development researchers.

The major international activities of KEDI were as follows:

1. Overseas Activities of KEDI Staff

Official overseas activities were initiated both by KEDI as a part of research projects and by the invitations from the collaborating or related foreign institutes. The official overseas activities were carried in 1992 as shown in Table 1.

Table 1. Overseas Activities of KEDI Staff in 1992

Name	Period/ Destination	Purpose
Jong-ha Han	Jan. 12-14 Canada	Participation in the Third Int'l Mathematics & Science Study
Don-hyung Choi	Jan. 16-24 Japan	Participation in an Regional Workshop on New Direction for Science Education by UNESCO
Un-shil Choi & Bu-kwon Park	Jan. 28-31 Japan	Presentation of "Literacy & Peace Education in the 1990s" in Int'l Seminar by the Science Education Assn.
In-jong Park & Jong-hoon Kang	Mar. 16-22 Japan	Visit to MOE, NHK & other Institutes to Grasp the Status Status of Correspondence Education in Japan
Jong-ha Han	Apr. 9-14 Hungary	Presentation of "Science Education Reform in the Changing Korean Society"
Teack-hee Chung & Mee-kyung Lee	Apr. 21-25 Japan	Investigation of Educational Educational Software Development & Application in Japan
Byung-sun Kwak	June 1-5 Romania	Participation in the Seminar "Reform of Curricula & Textbooks"
Suk-jin Choi	June 14-15 USA	Invited by US Information Agency on an Int'l Visitor Grant
Young-min Kim	May 4-5 Pakistan	Presentation of "Status & Structure of Science Structure of Science Education in Korea"
Young-chul Kim	June 22-26 Thailand	Participation in the 13th UNESCO/ APEID Regional Consultation Meeting
Chon-sun Ihm	Aug. 1-9 USA	Korean Delegation to a Preparatory Symposium for "Education Standards for the 21st Century at Ministerial Level

Name	Period/ Destination	Purpose
Byung-sun Kwak	Aug. 20-22 RRC	Presentation on Korean Education for the 21st Century at Int'l Conference on Chosun Studies
Kyung-he Sung	Sept. 14-19 Switzerland	Participation in the Int'l Conference on Education on the Contribution of Education to Cultural Development
In-jong Park	Sept. 20-24 UK	Participation in the Workshop on "World Education Crisis: Roles for Distance Education" by Int'l Extension College
Ok-hwa Lee	Sept. 29 -Oct. 7 Japan	Participation in the Asia & the Pacific Seminar on Educational Technology-1992
Kynug-sook Park	Oct. 18-24 Japan	Presentation of "Overview of Special Education in Korea and Dissemination Problems" at the APEID Regional Seminar on Special Education
Joo-hoon Kim	Oct. 30 -Nov. 16 Japan	Presentation of "Characteristics of the Science Textbook of Korea and Major Problems In Writing Science Textbooks for Children and Youth" at Workshop by Asian Culture Center for UNESCO
Yong-hwa Kim	Nov. 4-20 Japan	Participation in the Regional Seminar on Educational Research in relation to Planning of Secondary Education in Asia and the Pacific
Yong-sook Park	Nov. 16-27 Philippines	Participation in the Regional Course on Emerging Trends in Professional Upgrading for Technician Teachers

Name	Period/ Destination	Purpose
Kyung-chul Huh	Nov. 19-20 Australia	Participation in the Experts' Meeting on Work Organization in Schools
Young-chul Kim	Nov. 16-20 Mongolia	Exploration of Possibility for Collaboration between Korea and Mongolia

2. Overseas Training Programs for KEDI Staff

The International Cooperation Division has provided supports for the short-term overseas training programs to KEDI staff which will help enhance their experiences with educational development projects. The 5 staff were sent to Florida State University for the period of one month, from November 21 to December 25, 1992 as shown in Table 2.

Table 2. Short-term Overseas Personnel Training Programs

Name	Field of Study
Youn-kee Im	Educational Policy
Ju Hyun	Psychology of Education
Doo-sun Yim	Career Education
In-je Lee	Teaching Composition/Literature Evaluation of Language
Tae-hwa Jung	Vocational/Technological Education

3. Training Programs for Overseas Educators

To disseminate educational experiences of Korea especially to developing countries, KEDI has offered 8 training programs to overseas educators including high government officials of developing countries. In 1992, 83 foreign educators from 6 countries were trained as shown in Table 3.

Table 3. Training Programs for Foreign Educators

Period	Training/Affiliation	Areas of Focus
Feb. 16-22	6 MOE Staff, Nepal	Primary Education in Korea
Mar. 12-13	3 MOEC Staff, Nepal	Primary & Vocational/ Technical Education in Korea
Mar. 24-30	14 MOE Staff, Pakistan	Primary & Women's Education in Korea
May 23 -June 2	21 MOEC Senior Officers, Indonesia	Overall Korean Education
Sept. 19 -Oct. 8	25 Principals of Business High Schools, Indonesia	Training & Workshop Programs for Business High School Principals of Indonesia
Dec. 7-18	6 MOE Staff, Nepal	Workshop for Effective School Management & Applied Educational Research
Dec. 13-16	4 Staff, MOE, Malaysia	Workshop for Science Education

4. Coordinations for Overseas Visitors

Overseas visitors to KEDI amounted to 228 in 55 occasions in 1992, consisting of government officials, heads of educational organization, researchers, professors, and UNESCO staff members. The dates, names

of visitors, and their main interests were shown in Table 4.

Table 4. Visiting Scholars

Date	Name/Affiliation	Main Interest
Jan. 16	M.H. Siddiqui, Vice Minister & 1 MOE Staff, Pakistan	KEDI Activities & Vocational/Technical in Korea
Jan. 17	M.B. Ginsburg, Professor,	Exploring the Possibility for Collaboration
Jan. 20	A. Benachenhou, Consultant UNESCO	KEDI Activities
Jan. 21	A.M.A. Muhith, Consultant & 2 others, UNDP	KEDI Activities
Feb. 10	Kezina, Vice-minister, MOE & 2 others, CIS	Curriculum Development
Mar. 30	B. Enhtvshin, Vice-minister, MOE, Mongolia	KEDI & EBS Activities
Apr. 8	P. Baldwin MP, Minister for Higher Education and Employment Services, Australia	Exploration of Possibility for Collaboration
Apr. 13	K. Suwannasing, Assistant Minister, MOE, Thailand	Vocational/Technical Education
Apr. 14	I. Yasumasa, Professor Shigaken University, Japan	Vocational/Technical Education
Apr. 18	M. Chien & 9 Staff, MOE, ROC	KEDI Activities
Apr. 22	J.W.Adams, Director, World Bank & 9 others, USA	Secondary Education
Apr. 28	Y. Nagakura, Professor, Toritsu University, Japan	Diverse Education Methods & School Facilities

Date	Name/Affiliation	Main Interest
May 12	D. Kamm, Director, FWU, Germany	KEDI Activities
May 13	J. Jacobs & 1 other South Africa	Korean Vocational/ Technical Education
May 18	R. Raskens, USAID	KEDI Activities
May 19	W. Hong, Chief, Nat'l Institute of Educational Materials, ROC	KEDI & EBS Activities
May 25	T.M. Sakya, Adviser & Co-ordinator, UNESCO/APPEAL	Literacy Education: Exploration of Possibility for Collaboration
May 28	Y. Li. Editor for Middle School English Textbook, ROC	KEDI Activities & Middle School English Textbook
June 1	B.C. Sanyal, Consultant, UNESCO/IIEP, & 1 staff, UNESCO/PROAP	KEDI Activities
June 11	A. Odden, Professor, Univ. of Southern California & 3 others, USA	Educational Finance & Benefits for Teachers
June 17	V.B. Karki, Director, MOE, Nepal	Educational Data Management Information System
June 19	J.H. Marburger, President, SUNY at Stony Brook, USA	KEDI Activities & Exploration of Possibility for Collaboration
June 24	J.J. McGovern, Director, Lancaster Univ., UK & 1 other	English Education in Primary/Secondary School Levels
June 25	D. Chen, Associate Professor, Shangdong Institute of Economics, PRC	Korean Education & its Reform
July 4	K.B. Wu, Consultant, World Bank, USA	KEDI Activities

Date	Name/Affiliation	Main Interest
July 7	N.P. Shrestha, Prof., Univ. of Wisconsin at Whitewater & 11 others, USA	Korean & American Textbooks
July 8	M. Cummings, Editor of Encyclopedia Publisher $ 40 others, USA	Korean Educational Systems & Comparisons of Textbooks
July 22	D.P. Bribble, Ambassador Australian Embassy at Seoul	KEDI Activities
July 24	C.V. Niekerk, Duputy-Director Dept. of Nat'l Education, South Africa	KEDI Activities
July 26 -Aug. 3	O.E. Andronikowich & 3 others APGE, CIS	Exploration of Possibility for Collaboration
July 27	E. Dvoretsky, Rector, Russian Center of Excellence for Managers & Engineers, CIS	KEDI Activities
July 29	Heller, Porf. Ludwig-Maximilians Univ., Germany	KEDI Activities & the Gifted Education
Aug. 19	T. Kozma, Director, Educational Research Institute, Hungary	Comparisons of Korean & Hungarian Textbooks
Aug. 31	T. Subbarao, Consultant UNESCO/APPEAL	Korean Literacy Education
Sept. 1	E.B. Ogena, Director, & 2 others, Educational Institute, Philippine	Science Education
Sept. 7	30 Staff, IDEA, Thailand	KEDI Activities
Sept.15	D.I. Fouries, Director for Elementary Education, & 1 MOE, Staff, South Africa	Distance Education
Sept.19	S. Bamrung, IEDA Staff, Thailand	KEDI Activities

Date	Name/Affiliation	Main Interest
Sept. 22	D. Koech, Vice Chairman of the Commission for Higher Education & 6 others, Kenya	Korean Vocational/ Technical Education
Sept. 24	A.R. Shorten, Senior Lecturer Monash Univ., Australia	KEDI Activities
Sept. 25	K. Harry, Prof. of Open Univ. & 1 other, UK	KEDI Activities
Sept. 29	Charoon, Assistant to secretary of MOE & 36 others, Thailand	KEDI Activities
Oct. 2	Y. Hisayasu, Editor of Mainichi Newspaper, & 6 others, Japan	KEDI Activities
Oct. 5	H.B. Long, Prof. of Oklahoma & 2 others, USA	KEDI Activities
Oct. 12	A.S. Suparno, MOE Staff, & 1 other, Indonesia	KEDI Activities
Oct. 16	E. Raab, Deputy Head, Research Dept., Germany	KEDI Activities
Oct. 18	36 IDEA Staff, Thailand	KEDI Activities
Oct. 19	G. Coetzee, Production Director, South African Broadcasting Corp., South Africa	KEDI & EBS Activities
Nov. 6	A. Wargner, OECD Staff	Exploration of Possibility for Collaboration
Nov. 10	J. Page, Word Bank Staff & 2 others, USA	Education Policy & Labor Market
Nov. 25	V. Sarubbi, President, Hoy Newspaper, Paraguay	Human Resource Development in Education & Training

Date	Name/Affiliation	Main Interest
Dec. 1	S. Pu, Publisher, PRC	North Korean Textbook
Dec. 9	M.C. Tibone, Ex-vice Minister for Foreign Affairs, & 5 others, Botswana	Adult & Teacher Education

5. International Activities with Related Overseas Organizations

With education related overseas organizations, KEDI exchanges programs, collaborates projects, and hosts international workshops. The international activities in 1992 were shown in Table 5.

Table 5. Collaboratory Activities with Overseas Institutes

Period/ Sponsor	Title	Objectives
June 2-12 UNESCO/ IIEP	Sub-regional Workshop on Education, Employment & Human Resource Development	To React to the Employment; To Promote a Cooperative System for Exchanging Experiences/Information & for Improving the Quality of Education/Training
Aug. 2	Seminar on Russian & Korean Textbooks: Russian Ed'l Planning & Policy; Relationship between Korea & Russia; Korea Reflected in Russian Textbooks, etc.	To Promote Mutual Understanding of Korean and Russia
Sept. 2	Seminar on Textbook Contents for Promotion of Mutual Understanding between the People of Korea & USA	To Promote Mutual Understanding; To Analyze Curriculum & the Policy of Textbook Contents and Mode of Teaching in Both Countries

Period/ Sponsor	Title	Objectives
Nov. 12 KEDI/ Australian Ministry for Empoly-ment, Education & Training	Seminar on Korean-Australian Education: Education System; Environmental Education; Korean Studies in Australia; Australian Studies in Korea, etc.	To Underline the Potential for Expanded Cooperation between Korea and Australia
Nov. 15 -20	N. Shigetto & 3 other MOE Staff, Japan	Seminar on Japanese Textbooks

6. Invitations of Overseas Scholars for Lectures

KEDI invited renowned foreign scholars as shown in Table 6. Their lectures have offered the most up-to-date information and thereby contributed to the improvement of the quality of researchers in the institute.

Table 6. Overseas Scholars Delivered Lectures

Date	Name/Affiliation	Theme
May 18	J. Weildman, Professor, Univ. of Pittsburgh, USA	Recent Reform of American Higher Education
Sept. 7	Y. Pai, Professor, Univ. of Missouri, USA	Educational Research Trends in USA
Nov. 03	N.M. Sheehan, Dean, Univ. of British Columbia, Canada	Politics of Teacher Education in British Columbia

IV. COMMISSIONED RESEARCH PROJECTS

* Project: Policy Study on a Training Professional Human Resources on Industrial Property
  Coordinator: Suk-min Chang
  Sponsor: Office of Patent

* Project: Reform Plan on the Korean Higher Education System
  Researcher: Young-chul Kim
  Sponsor: Ministry of Education

* Project: Development of Educational Software for Primary and Secondary Schools in 1992
  Coordinator: Sang-man Kwak
  Sponsor: Office of Education at Seoul

* Project: An Analysis of Foreign Social Studies Textbooks Focusing on the Korean Related Contents
  Coordinator: Chan-hee Lee
  Sponsor: Ministry of Education

* Project: English Language Teaching in Korea: A Joint Survey Report between Korea and Britain
  Coordinator: Ki-wha Park
  Sponsor: Ministry of Education

* Project: Curriculum Development for Industrial Safety & Hygiene Education
  Coordinator: Suk-min Chang
  Sponsor: Korea Industry Safety Association

* Project: Development of National Evaluation Criteria for High Schools Subjects
  Coordinator: Kyung-chul Huh
  Sponsor: Ministry of Education

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